

NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

**THE MILITARY HOUSING PRIVATIZATION INITIATIVE
AND THE DEFENSE DEPARTMENT'S MILITARY
FAMILY HOUSING REVITALIZATION PLAN**

by

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March 2003

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**THE MILITARY HOUSING PRIVATIZATION INITIATIVE AND THE
DEFENSE DEPARTMENT'S MILITARY FAMILY HOUSING
REVITALIZATION PLAN**

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ABSTRACT

Throughout our nation's history, the armed forces struggled to provide an adequate quantity and quality of living quarters for service members and their families because competing budget priorities continually overshadowed the need for more and better housing. The trend worsened during the 1990's, with traditional on base housing stocks deteriorating due to insufficient maintenance funding, inadequate new construction funding, and meager housing allowance increases. Supporting the continued and growing emphasis on the welfare of service families, Congress authorized the Military Housing Privatization Initiative (MHPI) in 1996 to take advantage of outsourcing opportunities and to quickly alleviate the housing problem. This thesis compares MHPI to the other two traditional family housing programs (MILCON and BAH) and analyzes many specific MHPI strengths and weakness.

The research concludes that MHPI is a valuable and flexible tool for bridging the perpetual gap between the MILCON program (limited by congressional appropriations) and the housing allowance program (limited by local real estate markets). Since many long-term uncertainties exist regarding DoD's future housing needs and the resulting effect of the BAH rate increase initiative, this thesis recommends that MHPI be used only when MILCON and BAH can not meet housing needs. Additionally, it recommends that DoD not count on projected MHPI cost savings, which are unlikely to materialize; and that DoD use MHPI projects as an opportunity to increase utility conservation responsibilities for service families.

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I. INTRODUCTION

A. PREFACE

The following quotations summarize the Defense Department's ongoing struggle to ensure its service members, and their families, are adequately housed.

During the 2000 presidential campaign, then Texas Governor George W. Bush proclaimed, "Two-thirds of military family housing units are now substandard, and they must be renovated." (President's Management Agenda, p. 39)

In a 1949 Life Magazine letter to the editor, Douglas Lindsey, M.D., from North Guilford, Connecticut wrote, "The Secretary of the Army long ago labeled the housing situation as critical. The Secretary of the Air Force has stated that no program within the Air Force, unless war comes, is as desperate as the housing program. Navy enlisted personnel have designated lack of housing as the number one deficiency in satisfaction in a Navy career. Perhaps Life's publicity will facilitate the appropriations that will make their execution possible." (Life, 28 March 1949)

In 1927, General Charles P. Summerall, Chief of Staff of the Army, conducted an inspection tour of most Army posts. Speaking to large audiences at San Diego and San Francisco and drawing national press attention, Summerall called the Army's housing situation a disgrace, stating that soldiers were living like "immigrants" or like "prisoners of war," and not like soldiers of the United States. (Bell, 2001)

An 1870 Surgeon general's report asserted that the United States had "the best-fed and worst-housed Army in the world." (Baldwin, 1993)

Although the measuring sticks for what are considered *substandard, inadequate, desperate, critical or disgraceful* housing conditions have changed over the last 53 years, one fact has not changed; military families still live in housing that is considerably older, smaller and less appealing than their civilian counterparts.

During the past four decades, housing for military personnel and their families has been a relatively low priority component of military construction. After a rapid expansion of what was then considered modern and up-to-date accommodations

throughout the 1950s and 1960s, the effort devoted to the construction and the upkeep of military housing did not keep up with the natural deterioration and changing societal definitions of adequate housing. The decrease in quality of housing accelerated since the end of the Cold War as a result of the uncertainties of base closures, both at home and overseas, and shrinking defense budgets, which have encouraged the channeling of construction funds into projects more directly related to operational readiness. As a result, the DoD estimates that 180,000 of the 300,000 military family units that it owns and operates no longer meet its standards for adequate housing. (Else, 2001)

Approximately one-third of military families live in government-owned housing, with the remainder living in privately owned or rented accommodations. Of these, DoD determined that more than half do not meet its current housing standards with regard to living space and amenities. The Department calculated that, by using its traditional methods of contracting and construction, it would need 30 years and \$16 billion to resolve its family housing shortfall. (Else, 2001)

DoD uses a combination of two methods to house active duty personnel and their families. The principal method is reliance on the commercial housing supply near military installations; for which Congress provides members with a cash allowance to defray most of the cost. The secondary method, intended for those locations where local housing is extraordinarily expensive or unavailable, is lodging members and their families in quarters built with appropriated funds on military reservations. (Else, 2001)

In 1996, Congress provided a third housing method to DoD. This thesis examines the Military Housing Privatization Initiative (MHPI), a collection of twelve temporary “alternative authorizations” (as they are termed in the relevant legislation) intended for the speedy creation of quality military housing through the leveraging of appropriated funds with private investment. DoD believes that a significant increase in the military housing allowance, a continuation of traditional construction, and expanded use of the MHPI will eliminate housing inadequacies by 2010. (Else, 2001)

The MHPI is not the first instance where Congress sought to leverage public appropriations in the creation of military housing, as explained below. Still, it stands out

for the authority and flexibility in execution granted to the Department of Defense to engage in long-term contractual relationships with the private sector. (Else, 2001)

B. RESEARCH OBJECTIVES

The purpose of this thesis is to examine the Defense Department's Military Housing Privatization Initiative (MHPI) and its evolution from legislation, to pilot program, to full implementation. The thesis considers the history of and need for military family housing (MFH), three previous MFH privatization efforts, the current state of MFH, and the current programs to obtain and maintain adequate housing for service families. It profiles and compares the distinctly differing approaches taken by the Air Force, Army and Navy using MHPI to solve their MFH problems. In doing so, this thesis includes key elements of MHPI agreements, such as housing allowances, impact aid, budget scoring, utilities, and installation security.

C. RESEARCH QUESTIONS

1. Primary Research Question

- How might the Department of Defense best use its various housing programs to solve its military family housing problem to ensure its service families are adequately housed?

2. Secondary Research Questions

- What methods for providing military family housing are available to the Defense Department?
- What housing methods do service members prefer and what factors influence their choice?
- What is the Military Housing Privatization Initiative (MHPI), and what are the program's goals?
- What impact does "budget scoring" have on MHPI decisions and deals?
- What impact does BAH have on the need for MFH and the prospects for MHPI?
- What impact will MHPI likely have on the closed military community concept, retention rates, and family security?
- What impact will MHPI have on DoD utility expenses?

D. SCOPE, LIMITATIONS AND ASSUMPTIONS

1. Scope

- Review the historical context of providing housing for military families

- Review four previous programs for providing MFH, including MILCON, Wherry, Capehart, and Section 801/802
- Review the general, current state of military family housing units, and the housing allowances provided to military families when MFH is not available
- Review the Military Housing Privatization Initiative (MHPI) program from legislation, thru pilot programs and to its current status
- Review the first ten MHPI projects as a basis for comparison
- Analyze the MHPI's long-term impact on total cost and flexibility in providing adequate military family housing. Will it likely provide the best value for DoD?

2. Limitations

While this thesis includes a variety of financial and other numerical data, it is not intended to be a detailed financial analysis of the MFH issue. Rather, it is intended to present a broad array of relevant facts and concepts that may provoke critical thinking and suggest which current or alternative military family housing programs warrant further study and consideration.

Beginning from contract award, only four MHPI projects have an operating history of at least three years with construction completed at only three of these projects. Since the program is still relatively new and evolving, a minimum amount of hard data is available for trending and comparative analysis.

3. Assumptions

Several assumptions critical to this thesis concern the military's size and structure, and the Federal budget over the next fifty years.

- While the military forces' size and structure is constantly adjusting to meet current and anticipated future threats, manning levels will not increase or decrease by greater than 20%
- With Social Security, Medicare and other entitlement programs growing in scope and cost, defense budgets will face increasing pressures to hold steady or decrease as a fraction of the total Federal budget
- Ongoing worldwide commitments such as stability and support operations and the war on terrorism, as well as equipment re-capitalization/procurement and daily training and maintenance will prevent DoD and Congress from allocating sufficient funding, through MILCON, to solve the MFH problem before 2010

- The proportion of service members with families will stabilize or grow rather than shrink
- The correlation between a service member's family life circumstances and his duty performance and combat effectiveness will continue gaining leadership attention and resources
- DoD's need for high quality personnel will increase as the complexity and sophistication of weapon systems and military duty increases
- DoD will continue competing with the private sector to recruit and retain highly quality personnel
- The high quality personnel that DoD seeks to recruit and retain will increasingly view a military career in terms of a total benefit package for themselves and their families, not just a temporary adventure and job skill training ground
- In the short-term (before 2010), a rapid, wholesale abandonment of MFH located on installations or sponsored/controlled by the services is not a feasible option. While much controversy surrounds the process and methodology used by DoD to determine MFH needs on installations, this thesis does not research the validity of housing requirement determinations. This thesis assumes that private sector housing markets do not currently possess the excess capacity to absorb all of the local military families if on-base housing were simply discontinued. Hence, at least some MFH provided either through MILCON, MHPI, or some other program is necessary.

E. METHODOLOGY

This thesis is based on an extensive literature review, including congressional testimonies, Federal agency reports from both the Congressional Research Service and the General Accounting Office, Defense Department and Service component internal regulations, reports, policies and plans, journal articles, written texts, and web searches.

F. DEFINITIONS AND ABBREVIATIONS

See Appendix A.

G. ORGANIZATION OF THE STUDY

This thesis is organized into six chapters. Chapter II provides a historical context for how military family housing originated, the Defense Department's World War II housing policies, and how these policies evolved during the Cold War. It also includes an overview of the traditional MILCON funded housing program, three previous military family housing privatization programs, and the implementation of budget scoring in 1990. Chapter III explains the two traditional methods DoD uses to provide military

family housing, how they function, problems associated with these methods, and service members' housing preferences. Chapter IV traces the Military Housing Privatization Initiative from legislation through pilot program status , to its current state. It explains specific program nuances and includes an overview of the three services' distinct approaches to solving their military family housing problems by using MHPI authorities. Chapter V provides an analysis of the current state of housing allowances and traditional MILCON housing, and how these programs interplay with MHPI. The analysis also outlines how specific MHPI nuances affect the overall program, the future prospects for and implications to military family housing, and the advantages and disadvantages of the distinct MHPI approaches of the services. Chapter VI summarizes the author's conclusions and provides recommendations for how the MHPI may be best used to improve military family housing.

II. BACKGROUND: HISTORY OF MILITARY FAMILY HOUSING IN THE U.S.

A. INTRODUCTION

This chapter reviews the historical context of military family housing, from the Revolutionary War period to present day. It includes overviews of the Quartering Acts, the U.S. Constitution's Third Amendment, housing the military from 1790 thru World War II, the Cold War era military family housing programs, legislative effects on Cold War housing programs, and eligibility criteria to live in military family housing.

B. WHY DOD PROVIDES MILITARY FAMILY HOUSING

1. The Quartering Acts

The history of military family housing in the United States dates back to the mid 18th century. As tensions grew between the North American Colonies and the Monarchy, British troop units deployed to the colonies to maintain civic order and reinforce King George's rule. The British troops were generally concentrated in urban areas such as New York, Boston and Philadelphia, and the increasing troop numbers lead to housing shortages. The monarchy viewed the colonial problems as temporary and resisted building larger military installations for housing their troops. Rather, the British Parliament passed two Quartering Acts in 1765 and 1774.

The Quartering Act of 1765 required colonial governments and citizenry to provide housing and expendable supplies to British troops stationed in the American Colonies. Where sufficient barracks were not available, troops were to be housed in privately owned structures. Specifically, the act stated that

... civil officers ... are hereby required to billet and quarter the officers and soldiers, in barracks provided by the colonies; and if there shall not be sufficient room in the said barracks for the officers and soldiers, then and in such case only, to quarter and billet the residue of such officers and soldiers for whom there shall be no room in such barracks, in inns, livery stables, ale houses, victualling houses, and the houses of sellers of wine by retail to be drank in their own houses or in places thereunto belonging, and all houses of persons selling of rum, brandy, strong water, cyder or metheglin ... uninhabited houses, outhouses, barns, or other buildings, as shall be necessary, to quarter therein the residue of such officers and

soldiers for whom there should not be room in such barracks and publick [sic] houses as aforesaid ... (Quartering Act of 1765)

The Quartering Act of 1774 was similar in substance to the 1765 Act, stating that

... where no barracks are provided by the colonies ... officers or soldiers in His Majesty's service shall remain within any of the said colonies without quarters for the space of twenty-four hours after such quarters shall have been demanded, it shall and may be lawful for the governor of the province to order and direct such and so many uninhabited houses, outhouses, barns, or other buildings as he shall think necessary to be taken (making reasonable allowances for the same) and make fit for the reception of such officers and soldiers, and to put and quarter such officers and soldiers therein for such time as he shall think proper.

However, this new Quartering Act allowed for the billeting of troops in occupied dwellings. (Quartering Act of 1774)

The Quartering Acts were part of a set of Parliamentary decrees, known as the "Intolerable Acts" that incensed colonists' anger toward King George, substantially contributing to the revolutionary movement, and left an enduring scar on the colonial political leaders.

2. United States Constitution, Amendment 3

Amendment three to the U.S. Constitution states, "No soldier shall, in time of peace be quartered in any house, without the consent of the owner, nor in time of war, but in a manner to be prescribed by law." Fifteen years after the second quartering act, preventing the forcible housing of soldiers by private citizens was still paramount to the constitutional writers. They ensured that private citizens and property owners could not be required to house soldiers except by passage of congressional legislation during wartime. This amendment forced the Secretary of War to provide organic housing for military forces, and not rely on the private rental market. It has guided military personnel housing policy for over 150 years.

Not until the Capehart program ended in the early 1960s did DoD recognize that it would never attain its goal of providing housing for all military families. The local economy surrounding military installations became the primary housing source, funded by housing allowances, and on-base housing became secondary.

3. Housing the Military Prior to World War II

Before the Cold War, on-base (or shipboard) housing was the norm for personnel during peacetime and housing allowances played a much more limited role than they do today. For the married members of the small peacetime officer corps, this meant on-base DoD family housing. For enlisted personnel, who were not expected to have families, it meant assignment to barracks living quarters. Although married men could be drafted into the enlisted force during wartime, they were expected to leave their dependants at home. The U.S. Court of Claims even used the notion that DoD housing was the norm for military personnel in 1925 to confirm the tax-free status of housing allowance. In the court's view, allowances were not taxable compensation but simply reimbursement for an expense. (CBO, 1993)

As late as 1948, the Hook Commission, an advisory group appointed by the Secretary of Defense, assumed that sufficient DoD housing would eventually be available to house most military families in peacetime, and that allowances for housing would be the exception rather than the norm in the post-WW-II era. To support that assumption, members of the commission argued that military personnel preferred DoD housing located on military bases and stressed the relationship between on-base housing and military readiness. The Cold War intervened and the Hook Commission's expectations were never realized. Instead, the Career Compensation Act of 1949 established the Basic Allowance for Quarters (BAQ) system, providing housing allowances to service members when on-base housing was not available. BAQ became an important element of military compensation, and an invaluable pillar in alleviating the plight of military families and their housing problems. (CBO, 1993)

4. Post-WW-II Standing Military Expansion

Although the Army quickly demobilized millions of men after VJ Day, the peacetime Army of the late 1940's was at least seven times larger than its predecessor of the 1930's. As the wartime cooperation between the Soviet Union and the United States deteriorated into the Cold War, it gradually became apparent that the peacetime Army required after World War II would be larger than any peacetime Army in American History. Among the many problems confronting the Army was the problem of providing family housing. (Baldwin, 1996)

Both military and civilian housing was in short supply in the years immediately following World War II. With the end of WW-II, the late 1940's saw 15 million American service men and women returning home. This situation, coupled with a housing shortage that grew steadily between 1928 and 1948, exacerbated an already existing general civilian housing shortage in the United States. In 1946, fully 9% of American families lived two or three couples to a single family home. (ACHP Report, 31 May 2002)

The general housing shortage, and a historically large peacetime military force made obtaining housing extraordinarily difficult for military families. For the first time in the history of our nation, the build-up of nuclear weapons in the years immediately following World War II resulted in a need to maintain a large, peacetime fighting force. At the same time, the increasing technological capabilities and equipment of the services required the services to retain highly trained technological experts rather than having them return to civilian life. (ACHP Report, 31 May 2002)

Secretary of Defense Louis A. Johnson summarized the acute military housing problem in 1949 when he said,

Rather than be separated from their families because of lack of Government quarters and scarcity of adequate rental housing at their places of assignment, many of the service personnel have accepted disgraceful living conditions in shacks, trailer camps, and overcrowded buildings, many at extortionate rents. It cannot be expected that competent individuals will long endure such conditions ...there is nothing more vital or pressing in the interest of morale and the security of America than proper housing for our armed forces. (ACHP Report, 31 May 2002)

In 1949, a pictorial and written article in Life Magazine exposed the squalid living conditions of enlisted men and their families at Fort Dix, New Jersey, and created a public outcry demanding Defense Department and Congressional action. Fort Dix had only 340 quarters for its 3,600 eligible families. The article profiled enlisted families renting shacks from unscrupulous landlords who had purchased the shacks from the Army after the Army declared them "unfit for human habitation." Most had no electricity, gas or plumbing, with up to 25 people sharing a single outdoor toilet. (Life, 07 March 1949)

5. DoD Housing Policy

a. Department of Defense Housing Policy Until 1949

From early in its history, the Army accepted a commitment to provide government-owned housing for most of its officers and soldiers. Unmarried, or at least ‘unaccompanied,’ soldiers lived in barracks, and officers, in bachelor officer’s quarters. The Army attempted, often with limited success, to provide family quarters for all its married officers and those enlisted personnel classified as eligible. Where government housing was not available, eligible officers and soldiers received monetary compensation, called basic allowance for quarters (BAQ), or housing allowance, to obtain housing in the private market. While the Army came to rely heavily on the private market to house its soldiers, its goal in the early post-war years was to provide government quarters for all eligible personnel. The Army’s objective, according to its Director of Logistics in 1948, was “to provide quarters on posts for all authorized military personnel.” (Baldwin, 1996)

b. Department of Defense Housing Policy After 1949

As the Cold War and Communist threats loomed, the Department of Defense was forced to amend its military family housing policy. The department realized it could no longer afford to build, maintain and provide family housing for all married service members. DoD began relying on the private rental market, with generous encouragement and involvement from the Federal Government. This decision helped alleviate the immediate problem; housing was difficult to find, expensive to rent, and frequently in deplorable conditions. Three weeks after the 07 March Life Magazine published the Fort Dix article, Senator Kenneth S. Wherry (R-NE) responded in a letter to the Life editor. He briefly profiled proposed legislation providing special financial incentives to private developers that would increase the military family housing inventory by 100,000 units over the next year. The bill assumed its drafter’s name and is profiled later in this chapter. The Wherry bill was the first of many creative attempts to solve the military’s family housing problem.

C. TRADITIONAL MFH WITH MILCON

Congress funds the Defense Department’s budget through yearly appropriations. Since 1960, the Defense Department’s budget has been divided into seven appropriations titles:

- Military Personnel
- Operations and Maintenance (O&M)
- Procurement
- Research, Development, Test, and Evaluation (RDT&E)
- Military Construction (MILCON)
- Family Housing (MFH)
- Revolving and Management Funds

The Family Housing title is sub-divided into four major functional categories:

- Construction (New, Post-acquisition, Planning and Design)
- Operations and Maintenance (including utilities)
- Debt Payments
- DoD Family Housing Improvement Fund (funds MHPI)

Both the new construction and the post-acquisition functional categories of the Military Family Housing appropriation title are specifically earmarked by installation and by project. There is virtually no opportunity for spending discretion below Congressional level. (FMR, June 2002)

Because Congress controls Military Family Housing spending so tightly, the process of perceiving a housing need, justifying it, requesting and receiving funds, and planning/executing the project can be inordinately long. The lag time from project conception and justification, through budget cycles and appropriations, culminating in a military family housing unit ready for assignment and occupation ranges from four to ten years, with the latter being closer to the norm. During this time, the project is subject to derailment by competing budgetary and political priorities within DoD and Congress. As a result, DoD family housing requirements historically outpaced military family housing funding for unit construction, renovation and operation. (Sorce, 2000)

D. PREVIOUS MILITARY FAMILY HOUSING PRIVATIZATION PROGRAMS

1. Wherry: 1949-1955

The Wherry program required no direct Congressional funding and was intended to increase MFH supplies around bases that were not scheduled for downsizing or closure. Private developers (sponsors) designed, built, owned, operated and maintained

the housing on either private land or land leased from DoD at nominal rates. Wherry land leases ran for a period of not less than 50 years and some leases ran for 75 years. To encourage developer participation and competition, the Federal Housing Administration (FHA) insured the private mortgages for up to 90% of the property's replacement value or a maximum of \$8,100, which limited Wherry house construction costs to \$9,000 each. FHA also required the housing to meet its standards for design, construction, and livability. (Baldwin, 1996)

Even when built on land leased from the Government, Wherry housing was not considered government quarters. Although private sponsors had to give priority to service members who wanted to live in Wherry units, the units were considered commercial rental housing, open to non-military occupancy. Few non-military people ever rented Wherry units. Soldiers and officers chose to rent voluntarily and paid their rent using their basic allowance for quarters to the private sponsor. Rental rates, however, were not determined by the amount of the housing allowance. FHA established rental schedules for the units based on its estimate of the income sponsors would need to operate and maintain the housing, repay the mortgage, and make a profit. At a congressionally mandated maximum interest rate of 4%, the sponsors would pay off the mortgage in slightly less than 33 years. (Baldwin, 1996)

Congress and Wherry sponsors had differing views regarding time horizons for project profitability. Wherry contracts and FHA rental rates were structured to provide sponsors with nominal profits during the first 33 years, while they repaid construction loans. Meaningful profit opportunities occurred during the 17 to 42 years after completing loan repayments. Congress viewed this as a fair incentive for sponsors to maintain the properties and to fulfill the 50 to 75 year leases. Sponsors viewed the 33-year nominal profit period as excessively long and unfair, making it difficult to attract sponsor developers and private financing. (Baldwin, 1996)

Wherry projects encountered numerous problems and the program was cancelled in 1955, after building 84,000 sets of quarters. Congress investigated reports of developers earning windfall profits through building code and maintenance shortcuts. Service components complained that the \$9,000 houses were too small, poorly

constructed and poorly maintained. With the advent of larger Capehart housing units (discussed below) Wherry vacancy rates increased and sponsors complained of financial losses. Wherry units included no rental or occupancy guarantees, and private citizen tenants were rare. (Baldwin, 1996)

Although FHA and DoD recognized local taxation as a possible problem when the program was established, the rental schedules included no allowance for the expense of local taxation. In the spring of 1956, the Supreme Court ruled that local Governments could tax Wherry projects. Wherry owners immediately applied for rental increases, but such increases would make Wherry housing less attractive to service members and likely increase the already high vacancy rates. Preferring Government operations and maintenance, and intent on ending the Wherry controversy, Congress authorized the purchase of Wherry units in 1956. By 1959, the service components purchased and renovated about 70% of the units whose average size was 831 square feet. (Baldwin, 1996)

2. Capehart: 1955-1964

In 1955, Congress authorized a new MFH program, sponsored by Senator Homer Capehart (R-IN), intended to correct Wherry program flaws. Under the new program, the FHA provided mortgage insurance for private sponsors who built, but did not operate, family housing units on government-owned or leased land. The Secretary of Defense had to certify the need for family housing at an installation in order to initiate a project. The services retained architect-engineer firms to design the projects, whose designs were then advertised for competitive bidding. (Baldwin, 1996)

The winning bidder formed a separate corporation for each project and obtained mortgage insurance for 100% of his bid from the FHA. Insured against risk by this mortgage guaranty, the corporation obtained a 25-year mortgage from a private lender. Congress limited the mortgage rate to 4% to encourage affordable mortgages. The corporation also reimbursed the service component for the design costs. Initially, FHA capped the mortgage insurance limit at \$13,500 per unit but later raised it to \$16,500. The increase accounted for housing industry inflation and allowed for larger, more desirable, quarters than Wherry permitted. (Baldwin, 1996)

After completing Capehart construction projects, the sponsor turned the corporation over to the service component, which assumed the mortgage obligation. The project became government quarters assigned to families of service members who forfeited their housing allowance. The services used the forfeited housing allowances to pay off the mortgages, and operated and maintained the projects using appropriated funds. Capehart added 115,000 units to the MFH inventory between 1955 and 1962. (Baldwin, 1996)

Capehart housing drew Congressional criticism from its inception. Some complained that mortgage repayment, over a 25-year period, was substantially more expensive than building with appropriated funds. Others questioned the need for mortgage insurance since the Government, which was essentially immune from default, assumed the obligations at project completion. The General Accounting Office (GAO) even accused the services of spending excesses on “costly and desirable, but not essential features, such as air conditioning and dishwashers.” By 1960, Capehart was rapidly falling out of favor. Inflation increased interest rates to 4.5% and forced mortgage limits up to \$19,800. Disputes with contractors and ballooning costs caused the Kennedy administration to retire the Capehart program in 1962, with Congress voting to build MFH exclusively with appropriated funds. That year, Congress authorized almost 14,000 new MFH units, the largest single authorization since the Korean Conflict, but appropriated funds for only one-half that amount. (Baldwin, 1996)

Although Wherry and Capehart provided almost 200,000 new housing units for military families, popular sentiment had turned against privatization initiatives. In 1959, Roland Boyd, a Texas lawyer and general council to the Wherry Housing Association said,

if a mistake had been made in the program, it was the turning of ownership, operation and management of military housing over to private industry. The military and private enterprise are not compatible in the field of ownership and management of military housing.

Both Senator Wherry and Senator Capehart conceded that building housing with appropriated funds would be best, but both argued that the Defense Department would not or could not maintain a long-term program of housing construction because of the

many demands on its resources. The decade of the 1960s would prove them right. The first post-Capehart appropriated housing program was drastically reduced before it left Congress, and in a few years the war in Southeast Asia pushed housing to a low priority. (Baldwin, 1996)

3. Vietnam Years

In the early 1960s, privatization programs fell out of favor with Congress, and the Defense Department returned to building MFH with appropriated (MILCON) funds. Although Congress pledged to continue the rapid pace of housing construction, the war in Southeast Asia soon relegated housing to a low priority. However, the Defense Department acknowledged that it would have to rely on the private community to provide most of its family housing. In areas where housing was not available, not adequate or not affordable, or where military necessity required it, the Defense Department would still provide military housing. In 1973, the nation adopted the all-volunteer force (AVF). To make military service more attractive to volunteers, Congress supported a brief surge of family housing construction with appropriated funds in the mid-1970s. But the budget priorities of the Carter administration in the late 1970s again reduced the level of family housing construction. (Baldwin, 1993)

The election of Ronald Reagan in 1980 brought to office an administration determined to rebuild American military strength and committed to using private enterprise to perform as many governmental functions as possible. But the cost of erasing the Defense Department's housing deficit with appropriated funds was staggering and competed with the numerous other requirements for rebuilding the armed forces. Again, as they had done three decades earlier, Congress and the administration turned to the private sector for the capital to revitalize family housing. (Baldwin, 1993)

Congress first authorized leasing at all military installations in 1962. But domestic short-term leasing remained a relatively small program. Leasing overseas expanded dramatically, however, in the mid-1970s as the Defense Department turned to this approach to provide much-needed family housing abroad. When the administration and Congress tackled the problem of military family housing in the early 1980s, they had a variety of options to consider from the rich, but often misunderstood, history of Defense Department housing privatization programs. (Baldwin, 1993)

By 1980, family housing became a high priority for the Defense Department due to demographic changes among the troops . While the proportion of married officers was always high, the proportion of married enlisted personnel had grown steadily since the end of World War II and especially after the formation of the AVF. DoD leadership increasingly recognized the influence of family issues on morale and reenlistment and in 1983 declared that support for military families was described as ‘an organizational imperative.’ (Baldwin, 1993)

4. Section 801 and 802 Leasing Programs of the 1980s

In the Military Construction Authorization Act for Fiscal Year 1984 (Public Law 98-115), Congress enacted and President Ronald Reagan signed into law, legislation that established two new pilot programs for military family housing. Dubbed the “801” and “802” programs after the sections of the act that established them, the programs attempted to tap the resources of the private sector to improve military family housing. Armed with a series of inducements and guarantees, the Defense Department hoped to persuade private developers to build family housing on or near military installations and make that housing available to service members. Better family housing, the Defense Department argued, would improve morale and encourage reenlistment. While these factors are critical to any armed force, they were especially important for a rapidly expanding, all-volunteer force, which was just a decade old. As the Reagan administration launched its post-Vietnam buildup of American forces, family housing, like manpower and hardware, would benefit from increased military spending. (Baldwin, 1996)

The Section 801 and 802 programs were touted as the complete solution to DoD’s long-standing housing problem. During congressional testimony in 1983, Lawrence Korb, Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics said the new 801/802 programs would “maximize private initiative, benefit the community, minimize government involvement, increase freedom of choice for all people in choosing housing, and greatly reduce the Government’s short - and long-term costs.”

Section 801/802 MFH was rented primarily to military service members. Although service members were not officially required to accept 801/802 units, they were strongly advertised and supported by the installation housing offices. For service

members, 801/802 units were easy to obtain and less costly than other private sector housing when traditional on-post housing was not available. Eligible military personnel voluntarily rented the units, using their housing allowances, and paid their own utilities out of pocket. Rental rates were determined jointly between DoD and the developers, and were described as “reasonably equivalent to comparable rental units in the community.” The private developer operated, maintained and managed the housing units. The developer risked losing his lease/rental guarantee if maintenance and management support was inadequate. The Defense Department had the right of first refusal to acquire the units at the end of the leases. (Baldwin, 1996)

Both 801 and 802 were initially designated as two-year pilot programs. Congress renewed them annually before modifying them and making them permanent housing options in 1991. Reluctant to relinquish any budget control to DoD, 801/802 deals required Congressional approval after the service components negotiated/structured the deals with private developers.

The Congressional Budget and Impoundment Control Act of 1974 required specific language in the contract agreements stating that “the obligation of the United States to make payments under the agreement in any fiscal year is subject to the availability of appropriations for that purpose,” and is commonly referred to as the ‘subject-to-availability-of-funds’ clause. This provision made private developers skeptical of the Government’s long-term intentions, significantly hampering efforts to encourage private investment in 801/802 projects, and leading to a slow start for the programs.

	Sect-801	Sect-801	Sect-802	Sect-802
Provisions	1984-1990	After 1990	1984-1986	After 1986
Term Limit	20-years	20-years	15-years	25-years
New/Rehab	New	New/Rehab	New	New/Rehab
On/Off Post	On and Off	Off-Post	On and Off	On and Off
O&M	KTR or Govt	Only Govt	KTR	KTR or Govt
Building Specs	Local Code	Local Code	DoD Code	Local Code

Table 1. Section 801/802 Comparison Table.

a. Section 801, Before 1991: “Build-to-Lease”

Section 801 was significantly more successful than its 802 cousin. It was called ‘build-to-lease’ because developers built the housing units after winning competitive bid processes, entered into lease agreements with service components and obtained Congressional approval. The projects required new unit construction, built either on-post or off-post, in accordance with local building codes, rather than DoD construction standards. Off-post units were to be located within 30 miles and a 60-minute commute from the installation, and were subject to local property taxes. The leases were 20 years in length, allowing either contractor or Government operations and maintenance.

The service component paid rent, in the form of lease payments, in return for filling all units with military personnel. The rent was funded from a pool of money derived from forfeited housing allowances. Service members forfeited receipt of their housing allowance and paid their own utilities out-of-pocket. Rental prices were based on the Government’s leasing contract with the developer and not connected to housing allowance rates.

b. Section 801, Problems and Revisions

Section 801 projects immediately encountered a host of difficulties but managed to produce housing units throughout the 1980s. Projects were significantly delayed as developers negotiated lower, more favorable tax rates with local governments, and tried to avoid Davis-Bacon wage rates. The Department of Labor eventually ruled in favor of the labor unions, upholding Davis-Bacon wages, thereby prompting developers to ask for additional funding since the higher Davis-Bacon wage rates were not priced into bids. The services argued that the lower property taxes and the associated delays while contractors negotiated them were adequate offsetting values for the higher wages.

Another source of controversy regarded the Government’s responsibility to ensure the projects’ adherence to construction codes. DoD claimed it had only to ‘monitor’ the projects, since they were built to commercial standards, not DoD codes; and that local governments and investors shouldered the duty to ‘inspect.’ The General Accounting Office (GAO) agreed that DoD need only monitor the projects, but must more specifically define exactly what monitoring entailed. (GAO/NSIAD -87-13BR)

To obtain lower land costs, and consequently lower bid prices, some contractors sought land at the outer reaches of the 30-mile/60-minute range arc. At Fort Drum, New York, 801 residents complained of isolation from the Post and its associated facilities benefits, coupled with frequent and excessive commuting hazards, especially during winter weather.

By 1986, section 801 still appeared favorably enough to DoD that the Department's policy was to obtain all future MFH through a 60/40 mix of MILCON and 801 programs. Congress was skeptical as to how 801 leasing could be less costly, in the long run, when compared to MILCON "ownership." They required that all 801 projects show at least a 5% cost savings when compared to MILCON before approving the lease arrangements. GAO was also skeptical, firmly believing that leasing was more expensive in the long run due to contractor profits, poor construction quality, and poor maintenance prospects. While not mandatory, GAO recommended the services include performance bonds in their contracts, to increase the probability of successful project completion with minimal financially related delays (GAO/NSIAD-87-13BR). The services, primarily the Army, had not used performance bonds, believing that a guaranteed long-term lease arrangement negated their usefulness, and only increased overall project cost.

Congress modified the 801 program in 1991, ending its pilot stage and making it a permanent MFH option. The changes included allowing for rehabilitated units to increase program flexibility and reduce costs, especially in urban areas. Addressing GAO concerns, off-post construction was mandated. GAO argued that on-post projects were not operating leases, but were actually disguised capital leases, with significant legal and funding implications since the Government was effectively obligated to purchase the property at the end of the lease (GAO/NSIAD-87-13BR). Finally, DoD agreed to assume operations and maintenance functions, easing congressional fears of developers skimming maintenance dollars to boost profits and leaving service members to reside in substandard/unsafe conditions. GAO contended that, similar to Wherry projects, developers would lose interest in maintenance after the first seven or eight years of the lease, when maintenance costs increased and profit-boosting ACRS depreciation was exhausted.

c. Section 802, Before 1987: “Rental Guarantee”

This program was called ‘rental guarantee’ because the service component guaranteed that military personnel would occupy a minimum percentage (up to 97%) of the units, with the service filling the rental gap if occupancy was too low. To minimize the chances of a vacancy gap, 802 projects were restricted to bases where current military-controlled housing had exceeded a 97% occupancy rate for the preceding 18 consecutive months. This requirement was waivable for new installations or those expecting a large increase in military personnel during the 1980s expansion. Section 802 projects required new unit construction, built either on-post or off-post, in accordance with DoD construction standards, and subject to local property taxes. The rental guarantees lasted for a 15-year maximum, were not renewable, and specified contractor operations and maintenance. DoD was responsible for 80% of the property tax increases over the contract life.

Service members received their housing allowance, and forwarded it to the contractor as rental payment, paying for their own utilities out-of-pocket. To protect against escalating rental rates, only that portion of the rent devoted to operation and maintenance (maintenance rent) was allowed to rise over the contract period. Shelter rent was fixed over the contract life.

d. Section 802, Problems and Revisions

From the beginning, section 802 projects were unpopular with private developers. Since shelter rent was fixed over the contract life, and initial construction costs were capped at about 85% of the average occupants housing allowance, contractors envisioned inadequate profitability opportunities. By 1987, section 802 had produced no housing, and was dying on the vine. Congress revived the program by relaxing its parameters. Using local building codes and including rehabilitated units reduced construction costs and attracted private investor interest. Unfreezing shelter rent, permitting government O&M, and extending contract life spans to 25 years increased developers’ long-term profitability prospects. Lastly, for those projects built on Government land, lease renewal became an option, but was limited to the length of the original contract. By 1993, section 802 had produced only 276 units, and although authorized, its use was not pursued.

E. THE BUDGET ENFORCEMENT ACT (BEA) OF 1990 AND THE FEDERAL CREDIT REFORM ACT (FCRA) OF 1990. (BOTH INCLUDED IN PUBLIC LAW 101-508)

The BEA and FCRA redesigned Federal budgeting and spending processes and were intended to limit spending and eventually reduce the ballooning Federal deficit. Congress, when authorizing money, and Federal agencies, when requesting funding, would have to include the sum of all future obligations in the budget year in which the program was authorized. Essentially, a current Congress cannot commit future congressional appropriations by authorizing funds for a long-term project without providing all/most of the funds in the year of authorization. Budget scoring dramatically changed the MFH landscape.

1. Budget Scoring Defined

The process of scoring or “scorekeeping” determines whether the total cost of a long-term program (or how much of the total cost) is charged against the Federal budget in the program’s first year, or whether those program costs are spread out over the life of the program. Scoring/scorekeeping is the percentage of dollar value, from 0% to 100%, of a project’s cost that must be allocated to an agency’s budget in a given fiscal year. Therefore, if a project cost of \$1 million is scored at 10%, then \$100,000 of the agency’s budget authority for that year must be used to cover the assessment. The remaining \$900,000 is applied to future years’ budgets, based on the scoring for each years’ commitments. A score of 100% would mean that all \$1 million would have to be covered by the agency’s budget authority in the designated year, even if the contract called for actual payments of \$50,000 per year, for 20 years. (Else, 2001)

Budget impact of the use of various authorities ranges from none, through moderate to high. Examples include;

- Zero Budget Score: conveyance of non-revenue producing land or existing housing units to private developers, or payment of rents by disbursing allotments
- 4-7% budget score: provision of a loan guarantee.
- 30-40% budget score: direct loan to a contractor
- 70-100% budget score: guaranteeing a minimum tenant occupancy rate or the net present value of all annual BAH for the total number of tenants

2. Budget Scoring Effects on Military Family Housing Programs

In the early 1990's, section 801/802 programs became caught up in the much larger political battle over the Federal budget deficit and Federal spending. The BEA was clear regarding the treatment of leases, lease-purchases and purchases. It stated that, "Budget authority will be scored in the year in which budget authority is first made available in the amount of the government's total estimated legal obligation."

Prior to 1990, OMB scored the Section 801 and 802 programs, somewhat reluctantly, on a yearly basis across the life of the lease. Under the new law, the full cost of the 20- or 25-year lease would be scored in the first year, rather than applying the yearly leases obligations against the budget year in which they were paid. DoD complained bitterly to Congress and OMB, but received little sympathy. One creative suggestion to circumvent the budget scoring problems was to make 801 deals into "1 - year contracts, with up to twenty-four one-year options, which could be terminated at any time without cost to the Government." This solution was labeled "unworkable" and not attempted, since private firms would not economically finance projects without long -term Government commitments (Baldwin, 1996).

The new scoring rules took effect on 01 October 1991, and DoD announced that, due to budget scoring, it would no longer seek 801/802 authorizations. The BEA and its scoring method eliminated one of the most attractive features of the 801/802 programs, smaller yearly expenditures, and made construction with appropriated funds preferable, which resulted in clear title to the housing at the project's conclusion. The Army obtained the lion's share of 801/802 housing, adding over 4000 units to its MFH inventory. While the 801/802 programs did not solve the MFH problem, they contributed to its solution, or at the very least, prevented its worsening. (Baldwin, 1996)

F. ELIGIBILITY

Eligibility refers to who is deemed qualified and deserving to live in MFH. Before 1949, marriage among the enlisted ranks was discouraged and reinforced by housing policy. Enlisted soldiers were assigned to barracks and paid for separate quarters out of their own pockets if they wished to bring their spouses/children with them to their duty stations. (Alt, 1991)

Including junior enlisted personnel with families in the housing allowance system, like their inclusion in the system of DoD family housing, is relatively recent. The Career Compensation Act of 1949 marked the first time that most grades of enlisted personnel became eligible for cash housing allowances similar to those that officers received, but only at “without dependants” rates. Marriage among junior enlisted personnel was strongly discouraged. The 1949 act also made married “career” enlisted personnel (defined as corporals with seven years of service and all sergeants) eligible for public quarters, believing housing allowance “with dependants” was unnecessary since government housing program expansions would soon fill the need. Enlisted personnel struggled to meet housing needs throughout the 1950s and 1960s. Although some additional allowances were available for special dependency cases, advent of the all-volunteer force (AVF) in 1973 finally established housing allowance “with-dependant” rates for junior enlisted personnel. (CBO, 1993)

After 1973, all junior enlisted personnel with dependants became eligible for housing allowance, but not all were eligible for on-base government quarters. MFH was still restricted and described by Congress in 1983 as available to those personnel who “in all likelihood are committed to a career in the military.” Specifically, the minimum rank was set at “E4 with over 2 years of service, except when all eligible personnel are otherwise adequately housed.” (Baldwin, 1996)

Because of congressional involvement in the section 801/802 programs, DoD gradually made all married enlisted personnel eligible for MFH. Today, MFH for married junior enlisted personnel is seen as a valuable tool to encourage favorable first term retention decisions, to promote military family members’ overall well-being, and to increase deployment readiness.

G. CHAPTER SUMMARY

While the Federal Government’s housing policies regarding military families changed significantly over the last 200 years, one condition has pervaded the landscape. The supply of housing units available to military families has consistently lagged the demand for these units. As well, the questionable quality and low affordability of these structures led to additional hardships and sacrifices by service members and their families. Although Congress and the Defense Department have applied significant effort

to eliminating the problem over the last 50 years, military family housing shortages and inadequacy issues still permeate military service today.

A comparison of the four most prominent privatization programs of the post - World War II era reveals two broad tendencies: a tendency to separate the cost of the housing from the service members' ability to pay; and a tendency to separate construction from operations and maintenance. All four privatization programs are progeny of the Cold War, two of them from its beginning and two from its end. All were born of the conviction that private enterprise could be mobilized in peacetime to support that war effort. All are tangible reminders of the unprecedented importance that military families gained in the second half of the 20th century. (Baldwin, 1996)

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III. TRADITIONAL MILITARY FAMILY HOUSING PROGRAMS

A. INTRODUCTION

Today, DoD provides housing for its military families through a three-pillared approach; housing allowances (BAH), traditional MILCON and the new Military Housing Privatization Initiative (MHPI). This chapter discusses the BAH and MILCON pillars, with MHPI deferred to Chapter IV. The relative aggregate cost, and the components of those costs, for both BAH and MILCON housing is considered. Military personnel demographic shifts, personal preferences and the reasons for those preferences are reviewed to determine what method for providing family housing may most closely align with service members current and anticipated wants and needs. Finally, problems and short falls of the BAH and MILCON methods are examined.

B. MILITARY FAMILY HOUSING TODAY, AND ITS IMPACT ON SERVICE MEMBERS

Excluding the new privatization initiatives, the Defense Department's Military Family Housing program consists of two components, housing allowances and DoD owned housing units. These two components are discussed below. The reasons that military families choose to live in MFH, or the reasons they choose not to, are also outlined, providing an overview of the current demand for MFH.

1. Basic Allowance for Housing (BAH)

As discussed in Chapter II, the Defense Department traditionally gives housing allowances to certain service members when on-base military family housing is not available. Service members then exercise their own discretion in purchasing or renting accommodations, in the surrounding community, that fit their budget and needs. BAH is funded through the annual Military Personnel (MILPERS) appropriation.

a. History and Purpose of Housing Allowances

In 1949, the Career Compensation Act established the Basic Allowance for Quarters (BAQ) as a permanent fixture in the military compensation system. While the eligibility criteria to receive BAQ changed over the years, the system's premise has not changed. Recognizing its inability to provide MFH to all who qualified for it, DoD instituted BAQ as the formal solution to the MFH gap. Congress authorized variable

housing allowance (VHA) in 1980 as a rental supplement for high cost-of-living areas. VHA improved the housing allowance system, but problems and complaints persisted.

At the Defense Department's request, Congress overhauled the housing allowance system, re-labeling it Basic Allowance for Housing (BAH) and instituting the new system in fiscal year 1998. DoD and the service components designed the Basic Allowance for Housing program to provide more accurate housing allowances by basing them on the market price of rental housing (rather than member-reported rents). This new method ensured a better correlation between allowance payments and rental prices.

The purpose of the Basic Allowance for Housing (BAH) program is to provide uniformed service members accurate and equitable housing compensation, based on housing costs in the local civilian housing markets near installations, and is payable when government quarters are not provided or available. Since the goal is to help members cover the costs of housing in the private sector, rental-housing costs in the private sector are the basis for the allowance. DoD determines the correct housing allowance to enable members to afford suitable rental housing within a reasonable distance of their duty location. For BAH purposes, "reasonable commuting distance" is defined as generally within 20 miles or one hour drive with rush hour traffic. The allowance amount is based on geographic duty location (by installation zip code), service member pay grade, and dependent status. (BAH Primer, 2002)

b. BAH Data Collection and Rate Setting

DoD employs a private contractor to collect the data annually for approximately 400 Military Housing Areas (MHA) in the United States, including Alaska and Hawaii. DoD and the Services define these MHAs by sets of ZIP Codes. Data collection occurs in the spring and summer when housing markets are most active. Rental costs are collected on apartments, townhouses/duplexes, and single-family rental units of varying bedroom sizes. Price data collected includes the cost of rental housing, utilities, and renter's insurance. In each MHA, the contractor contacts the major local utility provider and collects their service fees and utility rate data. They gather data rate information for both the current season and the most extreme heating and cooling seasons for each MHA, as well as scheduled rate increases. The renter's insurance portion of BAH covers the value of household contents. These content values are correlated with

selected incomes and dwelling types. (BAH Primer, 2002) This data set, along with DoD policy guidance regarding target Out-Of-Pocket expenses percentage, forms the basis for determining BAH rates, which are readjusted annually.

c. Out-of-Pocket (OOP) Expenses

BAH is designed to be fair for all service members in all locations in the United States. Although housing costs and BAH rates vary by location, average out-of-pocket costs are designed to be the same for members of the same rank with typical rental expenses. The typical service member in a given grade and dependent status who arrives at a new duty station will have the same monthly out-of-pocket costs regardless of the location. For example, if the out-of-pocket cost for a typical E-5 with dependents is \$106, the typical (median) E-5 with dependents can expect to pay \$106 out-of-pocket for housing if assigned to Miami, New York, San Diego, or any duty location in the United States. (BAH Primer, 2002)

However, for a given individual, the actual out-of-pocket expense may be higher or lower than the typical. For example, a service member who chooses a bigger or more costly home than the median will spend more out-of-pocket. The opposite is true if a service member chooses to occupy a smaller or less costly home. Only for the member with median costs do we say that out-of-pocket expense is the same for a given pay grade and dependent status in any given location. (BAH Primer, 2002)

In his fiscal year 2002 Management Agenda, published by the Office of Management and Budget (OMB), President Bush proclaimed, “The Administration is committed to reducing to zero by 2005, the average out-of-pocket expense of military families living in private housing in local communities. This will enable more military families to leave inadequate government housing and rent quality private-sector housing in the local communities around DoD’s installations.” (President’s Management Agenda, 2002) OOP expenses peaked at 22% of total housing costs prior to instituting the BAH system. The planned OOP expense ratios are 15% for FY-01, 11.3% for FY-02, 7.5% for FY-03, 3.5% for FY-04 and zero by FY-05. (BAH Primer, 2002)

2. Service Member Housing Preferences

In 1999, DoD and GAO jointly conducted a survey of active duty personnel to gather their views on MFH, housing allowances, and a variety of other issues. The

survey indicates that personnel tend to prefer civilian housing when they have the financial ability to afford it. The survey solicited 66,000 personnel, of which 51% responded. At the time, 33% of personnel with dependants lived in MFH and 67% lived in civilian housing. If costs were equal, 72% of service members responding indicated they prefer civilian housing. Officers are more likely to live in civilian housing than enlisted personnel. Also, personnel are more likely to live in civilian housing as they gain seniority; 75% with over 20 years in service living in civilian housing. Home ownership also increases dramatically with years of service, while renting decreases. Only 14% of personnel with less than five years service own homes. The service-wide average is 30% for home ownership. Fifty-three percent of personnel with over 20 years service own their homes. (GAO-01-684)

3. Those Who Favor MFH and Why

Many military families strongly favor DoD owned/sponsored housing for a variety of reasons, including economic, security and convenience. MFH units are either constructed on, or in close proximity to their parent installations, and form unique subcultures of close communities with exclusively military families. Depending upon the installation, waiting lists to obtain MFH range from non-existent to 24 months, but overall the demand for MFH far outstrips its supply. (RAND, 1999)

When surveyed, service members give a variety of reasons why they prefer MFH for their families. Those who prefer MFH list a variety of reasons for their choices, including close proximity to base facilities such as child care, playgrounds, hobby shops, exchanges/commissary/shopping, fitness centers, youth centers, health clinics, and numerous outdoor recreation facilities. DoD provides many of these facilities at below-market costs, making them attractive options and increasing the importance of their close proximity to service members' living quarters. Some MFH residents simply prefer to live in and around communities filled with other people like themselves who understand the rootless lifestyles and spousal deployments of military service. (Johnson, 2002)

A recent RAND study quantified the top nine reasons service members give for preferring MFH, and their associated percentage of respondents answering.

- MFH is the best economic decision 61.1%
- MFH provides the best security 27.5%

- MFH has close proximity to work 25.5%
- MFH was available when needed 22.7%
- Did not like the civilian housing available and affordable 12.7%
- Like the military housing that was offered 8.9%
- Close proximity to base facilities such as commissary/exchange 7.8%
- On-base schools are better than off-base schools 4.2%
- Like having military neighbors 2.2%

The report also indicated that demographic characteristics are the main factor in the demand for MFH. Those who most strongly prefer MFH are lower income personnel (especially junior enlisted personnel), those with spouses that do not work outside the home, and those with a greater number of children. While non-working spouses and junior pay grades tend to make less money available for housing expenditures, more children tend to require larger (in terms of square feet) dwellings, requiring larger expenditures. Since BAH rates increase by pay grade, not number of dependants, military members with larger families are entitled to a larger residence in military housing than they would likely be able to afford in the civilian housing market. Clearly, service members living in MFH do so because it is affordable, secure and close to work. (RAND, 1999)

4. Those Who Avoid MFH and Why

While some military families wait up to two years for on-base housing, most military families (about 2/3) continue living off base, in privately owned or rented accommodations. The reasons for their decisions to reside off base vary, but include small, run-down or non-available MFH, rank-segregation, busybody syndrome and the numerous rules/regulations governing MFH. Some simply do not want to be surrounded by military culture 24 hours per day. (Johnson, 2002)

Dual-military couples primarily live off-post for economic reasons, with the exception of select senior-ranking command positions where service members are generally expected to live on base, in “commander’s residences.” Both service members receive BAH at the without-dependants rate, unless they have one or more non-military dependants, in which case, the senior-ranking person of the couple receives BAH at the with-dependants rate. Since their combined BAH is substantially more than the cost of

renting or owning in the civilian market, dual-military couples rarely live in MFH. (RAND, 1999)

The 1999 RAND study also cites the top nine reasons service members give for renting or owning housing off base, and the associated percentage of respondents answering.

- Renters
 - MFH not available when needed 40.2%
 - Prefer freedom from MFH rules/regulations 35.9%
 - Prefer privacy afforded by blending into civilian community 31.0%
 - Did not like MFH offered/available 15.7%
 - Renting is a better economic decision 11.0%
 - Spouse is military, so MFH would be more costly 6.5%
 - Thought off-base schools are better than on-base schools 6.0%
 - Like having civilian neighbors 5.6%
 - Better security living in civilian housing 2.6%
- Owners
 - Good investment and tax advantages 40.5%
 - Owning is a better economic decision 30.0%
 - Prefer freedom from MFH rules/regulations 23.2%
 - MFH unavailable when needed 16.9%
 - Prefer privacy afforded by blending into civilian community 16.5%
 - Expect to live in this area when I leave the military 13.3%
 - Did not like MFH offered/available 12.4%
 - Liked the ability to change my condo/house 10.6%
 - Thought off-base schools are better than on-base schools 9.5%

Similar to their on base counterparts, military families residing off base demonstrate strong recurring patterns to their housing choices, including economic considerations. Those who rent private sector housing do so because MFH is either not available or substandard when they need it, and choose to avoid the hassle and expense of moving when MFH does become available. They also prefer the freedom and anonymity

of civilian community living. Military families who purchase homes do so primarily for economic reasons, seeing home ownership as a long-term financial commitment. Like renters, owners also prefer the freedom and anonymity of civilian communities, and cite MFH as unavailable or substandard when they need it.

5. Personnel Demographics and Its Impact on MFH

The demographics of the armed forces are shifting along three avenues affecting MFH. Some shifts mirror trends in the population at large, but others run counter to them. First, the average service member is two years older than in 1973, a trend leading to more families for any organization. This age/family increase is even more prevalent in the military, since service members tend to marry sooner than their civilian counterparts, and have children before age 25. The proportion of married men (age 20-24) in the military is almost 50%, as opposed to 20% outside the military. The proportion of married women (age 20-24) in the military is 50%, as opposed to 37% outside the military. (RAND, 1997)

Second, today's service member is more likely to be female. Women made up just 5% of all recruits in 1973, increasing to 15% in 1994. This proportion continues to rise as more military jobs, previously considered close combat duties, become available to women. Females are more likely to be single parents, accounting for 25% of the female service members. Male single parents are rare. Most installations give MFH priority to single parents. (RAND, 1997)

Third, more military spouses are working outside the home. In 1992, almost 50% of the military spouses with children under age five were working, and 55% with children between six and seventeen were working. While working spouses increase installation child-care facility demand, they also increase family financial resources, which tends to negate the economic advantage of MFH, decreasing its demand. (RAND, 1997)

6. MFH Utilities

Guidance from OMB states that it is Government policy to minimize energy consumption. Consumption has been found to decrease when occupants of Government rental quarters are required to pay for the actual cost of utilities used (such as electricity, oil, natural gas, propane, water and sewer). Utilities should be furnished by a private company and billed directly to the occupant, wherever possible. (OMB, A-45, 1993)

When Government furnished utilities are provided, they should be metered or measured, where practicable. The rate for utilities furnished by the Government will be the same as the residential rate for these utilities in the nearest established community (when the appraisal method is used) or survey area (when the survey method is used) used in determining the base rental rate. The consumed amount of Government furnished utilities that are individually metered or measured will be determined by actual readings. (OMB, A-45, 1993)

When Government furnished utilities are not individually metered or measured, consumption will be determined on the basis of an analysis of the average amounts of utilities used in comparable private rental housing in the nearest established community (when the appraisal method is used) or survey area (when the survey method is used). Such estimates are usually available from local utility companies. (OMB, A-45, 1993)

Despite this guidance, most service members living in MFH are not accountable for their own utility usage. Most MFH units do not even have metering devices to measure individual unit consumption of electricity, gas, water, etc. In 1993, utility costs accounted for about 30% of DoD's expenditures for operating and maintaining MFH, contributing to the MFH cost differential. Unlike most families who live in the private sector, families living in MFH do not pay for utility services and have no direct financial incentive to economize. (CBO, 1993)

7. School Impact Aid

School impact aid fees are paid by the Federal Government to the local educational agency (public school system) to compensate it for the impact of military dependant students on the school system because installations are exempt from paying local real estate property taxes, which provide most of the funding for public schools. Impact aid payments are classified as 'high' or 'low.' High-level impact aid is provided when service members' children who live in an on-base project attend off-base public schools. Low-level impact aid is provided when the service members' children who live in an on-base project go to military schools (on-base) or if service members' children who live in an off-base project go to public schools. (PEP Glossary, 2000)

The differential between high impact and low impact school aid situations significantly adds to the cost of MFH located on installations. Although the values cited vary from study to study, CBO (1993), GAO (1996) and CNA (1997) indicate that 40 to 50% of the on-base cost differential of traditional MFH was due to high-level school impact aid. The 1994 OSD study found that high-level impact aid accounted for the entire cost differential for on-base MFH. (GAO-96-203)

8. The Installation Housing Office

Most military installations operate family housing offices, responsible for managing the installation's family housing program. They are usually staffed by DoD civilian employees, or occasionally staffed by non-DoD workers through outsourcing contracts. The family housing offices perform or oversee several functions, including:

- Managing assignment, termination and utilization of the MFH stock
- Acquire and dispose of MFH assets
- Manage MFH leasing programs
- Conduct pre-inspections and termination inspections
- Initiate and monitor MFH maintenance and repairs
- Conduct housing market analysis
- Justify MFH deficits
- Provide self-help instructions to residents
- Manage home-finding, relocation and referral services (Army Family Housing, 1995)

Most of these functions concern direct management of the installation's current and future MFH stock. The last function provides services to newly arrived military families when on-base MFH is not immediately available to them. Referral offices provide access to personal advice and written materials regarding the local housing market and economy, including average rental and purchase prices, utility charges, crime statistics, schools, and 'prohibited' areas and establishments. This information is especially valuable since the housing office is one of the first places service members are recommended to visit upon arrival at a new duty station, and because most arriving military families are unfamiliar with both the installation side and civilian side of their new community.

9. MFH Programs Paid by MILCON and O&M Funds

Congress maintains significant visibility and control over funds that support traditional MFH. The yearly National Defense Authorization Act appropriates specific funds for each service component, for both family housing MILCON and family housing O&M. This MFH support funding is strictly separated from other MILCON and O&M funds, and must be requested for specific projects and specific installations. MILCON funds are sub-divided by new construction and major renovation projects. O&M funds are sub-divided into several categories, including operations, utilities, maintenance, interest payments, mortgage insurance, currency fluctuations, and reimbursements. MILCON funds remain available for obligation for five years after appropriation, while O&M funds must be obligated in the year for which they are appropriated. Service components and installations have no freedom to redirect MFH funds to better meet their needs. Once appropriated by Congress, the funds must be used for that specific purpose for which they were appropriated and that purpose only. The DoD Financial Management Regulation, volume 6, chapter 9 summarizes the control Congress exercises over MFH funds, stating that, “Congress established the family housing appropriation to separate the funding of family housing from other programs. All obligations incurred to support the military family housing program shall be charged to the family housing appropriation.”

C. THE DEPARTMENT OF DEFENSE SUPPORTS MFH

Despite the historical and persistent problems and shortfalls with MFH provided through congressional appropriations, DoD still supports the continuing need for a robust MFH inventory.

1. MFH is Part of the Total Compensation Package

When viewed as an in-kind transfer, MFH is another avenue for DoD to compensate its service members outside the bounds of the traditional base pay system to help attract and maintain a high quality all volunteer force. This may also explain why access to MFH, like other forms of compensation, has traditionally increased with rank. (CBO, 1993)

2. Intangible Quality of Life Factors

Intangible factors also contribute to the favor with which many senior military leaders view DoD's role in providing family housing. Such leaders are familiar with the tradition of closed military communities, especially among the officer corps. Many believe that the on-base lifestyle reinforces service members' military commitment. In their eyes, a military career is not merely a job in the civilian sense, but an entire way of life. Separate military communities that reflect this viewpoint promote long-term military vibrancy and stability. (CBO, 1993) Senior leaders also cite increased unit cohesion, acculturation of junior personnel and facilitating support of deployed service members' families as important reasons favoring more MFH. (RAND, 1999)

Many DoD leaders frequently advertise MFH as contributing to over-all quality of military life, making service members and their families more satisfied with military lifestyle, more likely to choose careers, and subsequently easing the services' retention and recruitment burdens. In response to a 1996 GAO report that was critical of DoD's MFH programs, John B. Goodman, Deputy Undersecretary of Defense for Industrial Affairs and Installations wrote,

An iron link exists between quality housing and readiness. Military readiness is dependant upon retaining a skilled, trained force, and retention is directly affected by quality of life. An important aspect of quality of life is quality housing. Separation of military members from their families for deployments, operational missions and training is a long-standing fact of military life. As DoD's worldwide obligations fail to shrink and deployments grow, so grows the military community support needs of separated military families. That support is characterized by a community that is safe, secure, and has the necessary community support facilities to accommodate families while providing the cohesiveness needed during family separations. Recent operations highlight the increased frequency of deployments which have resulted in military members being separated from their families more often and for longer timeframes. This increased frequency of deployments results in a greater need for the remaining families to be located close to military installation support services.

Despite DoD and the service components' staunch support for MFH and its contribution to quality of life, little or no quantitative evidence to support these claims is visible through multiple quality of life and exit surveys. (GAO, 96-203) Today,

vehement support for sustaining and expanding installation supported MFH continues among DoD leadership, both civilian and uniformed.

D. PROBLEMS WITH CURRENT MFH SYSTEM

While most agree that MFH performs an important function for DoD, most also agree that the system has its problems and shortcomings as well. The following table, from a 1999 RAND study, displays data indicating service families' housing conditions.

<u>Characteristic</u>	<u>MFH</u>	<u>Civilian Rental</u>	<u>Owner Occupied</u>
Dwelling Age (years)	31	20	15
Dwelling Size (square feet)	1,257	1,336	1,728
Over-all Good House Condition	65%	79%	95%
Serious Pest Problem	23%	8%	6%
Good School Quality	26%	29%	49%
OOP Expenses (\$ per month)	zero	\$167	\$356
Nearby Playground (%)	94%	59%	61%
10-minute Work Commute	58%	21%	9%
30-minute Work Commute	97%	85%	77%

Table 2. Service Families' Housing Conditions.

1. Substandard Conditions

As the chart above depicts, when measured by almost any standard, the average MFH unit is less desirable than its private sector counterpart. Although they are economically rational, close to work, and child-friendly with playgrounds nearby, MFH units are also older, smaller, in poorer condition, and have a higher likelihood of pest problems and lower school quality. Additionally, many of the MFH units built before 1978 still contain asbestos insulation, lead water pipes and lead-based paints, making long term occupation of MFH units potentially dangerous to military families.

2. Long Waiting Lists

When demand for MFH exceeds its supply (usually the case), installation housing offices maintain waiting lists to prioritize allocation of the limited MFH stock. Separate waiting lists are maintained, usually according to rank, but sometimes according to family size. In rare circumstances, service members are moved to the top of the list

because of military necessity (many senior commanders are required to live on-base), extreme financial distress, or severe medical conditions that may require immediate access to base medical facilities. Most installations also give MFH priority to single parents. The waiting time varies widely by installation, and ranges from one month to 18-24 months. (RAND, 1999)

In general, waiting lists are longest for junior enlisted and junior officer personnel for two reasons. They are lower on the pay scale, in terms of both BAH and base pay, making them unable to afford home ownership and least capable of sustaining significant ongoing OOP expenses. Also, as a residual effect of the pre-1980s policy of discouraging marriage among first-term enlistees and limiting MFH to 'career minded' personnel, installations tend to have proportionately fewer quarters available, especially for the junior (E1-E4) enlisted. Lastly, installations located in areas with high private sector housing costs tend to have longer-than-average waiting lists for all rank groupings and dwelling sizes. (CBO, 1993)

3. MFH Costs DoD More Than Private-Sector Housing

Within the last ten years, several studies examined the relative costs of on-base MFH provided through the installation commander, as compared to housing provided through the private sector obtained from the local economy. The studies were interior and exterior to DoD, including the Congressional Budget Office (1993), OSD (1994), General Accounting Office (1996), and Center for Naval Analysis (1997). Although the studies varied in their computations and percentage differentials, all studies concluded that on-base MFH is more costly than private sector housing provided to service members through housing allowances. The most comprehensive and frequently cited study is the CBO study, which computed the average annual long-term costs for comparable housing units. (CBO, 1993)

<u>Cost Component</u>	<u>DoD-MFH</u>	<u>Private Sector</u>
Operations and Maintenance	\$ 6,200	
Amortized Cost of Capital	4,400	
School Impact Aid	1,900	
Cost of Land	500	
Housing Allowance (BAQ/VHA)		\$ 7,500
<u>Service Member Out-Of-Pocket Contribution</u>		<u>1,700</u>
Total Annual Cost (1993 dollars)	\$ 13,000	\$ 9,200

Table 3. Average Annual Long-Term Costs for Comparable Housing Units.

This data indicates that, in aggregate, MFH is 41% more costly than its comparable private sector counterpart ($9200 \times 1.41 = 13000$). DoD's BAH initiative to eliminate OOP expenses by 2005 will make DoD responsible for the \$1,700 currently paid by the service member. Although DoD's proportion of the total cost will change, the comparative, aggregate costs will not change. Operations and maintenance includes utilities, minor repairs, and local housing management operations. Cost of capital is based on a 57-year service life, including construction costs and one major renovation. School impact aid is the difference between what DoD pays for students who reside on base but attend off base schools, and the increment paid for students who both live and attend school off base. Cost of land is an opportunity cost (3% of \$16,000 per MFH unit) of the Federal government owning land, but borrowing money to pay for it. The \$9,200 total cost of private sector housing includes all associated costs including real estate taxes, maintenance, utilities, land, depreciation and interest. (CBO, 1993)

The 1997 CNA survey of all enlisted sailors found Navy MFH to be 49% more costly than its private sector counterpart. It determined total MFH costs of \$15,100 per year and comparable private sector housing costs of just \$10,125. Of the \$10,125, the Navy paid \$8,100 in BAQ/VHA and the average enlisted sailor paid \$2,025 (20%) out-of-pocket. Using the same methodology, the CNA study found Marine Corps MFH 30% more costly than equivalent private sector quarters. (CNA, 1997)

Based in 1995 data, GAO also found that MFH is more costly than private sector housing, by about 33%. The report cited excessive school impact aid and Government inefficiencies (caused by long planning and budgeting lead times, project oversight, high labor costs, detailed regulations and constraints) as the two reasons for the cost differential. Not surprisingly, the 1994 OSD study found MFH to be only 13% more costly than private sector housing. (GAO-96-203)

In 1995, DoD spent \$4.4 billion in housing allowances for 605,000 military families, covering about 80% of service members' housing costs. That same year, DoD spent \$2.8 billion to lease, operate and maintain 293,000 MFH units and \$724 million (MILCON) to construct and renovate MFH units. (GAO, 96-203) Since then, the numbers have changed slightly, reflecting a smaller active duty force and a commitment to lower/reduce OOP expenses, but BAH still received a disproportionately small proportion of the total housing dollars whereas the on-base MILCON/O&M accounts received a higher proportion of the housing dollars. In 2000, DoD spent about \$750 million (MILCON), from appropriated MFH funds, to replace or renovate MFH units, and \$2.8 billion, from the services' MFH O&M funds, to lease, operate and maintain the existing MFH stock. BAH payments totaled \$5.2 billion. (BAH Primer, 2002)

The numbers for 1995 and 2000 demonstrate DoD's continued but declining skew towards on-base housing. In 1995, BAH accounted for 55% of the housing dollars, while accounting for 65% of the personnel. On-base housing, supported by MILCON/O&M funds, received 45% of the funding to support only 35% of the service members. In 2000, BAH accounted for 60% and MILCON/O&M consumed 40% of the housing dollars while the ratio of on-base to off-base personnel remained unchanged. DoD still spends disproportionately more money to house service members on installations than it spends for off-post housing allowances.

4. Unavailability of Private Sector Housing

BAH cannot provide adequate, affordable family housing at all locations. Private sector family housing is not available, at any price, is of extremely poor condition, or may be located outside practical commuting distance near many military installations. Bases located in geographically remote areas with little or no local civilian population or housing market, such as Fort Irwin, CA, simply may not have private sector housing units

available to rent or buy. Service families assigned to bases located in extremely constricted real estate markets, such as Monterey, CA, may find that units near the installation are prohibitively expensive, and more reasonably priced units are outside the standard commuting distance. Still other housing units may be close-by, available and reasonably priced, but be of such poor quality as to make them unattractive to military families. Although BAH accounts for approximately two-thirds of military family housing, it cannot provide adequate, affordable housing under all circumstances.

E. CHAPTER SUMMARY

This chapter reviewed the history and current state of military family housing provided through both the BAH and MILCON funding methods. BAH is the lowest cost housing method, is highly flexible and immediately responsive to the changing needs of DoD, and allows service members unlimited choice in obtaining housing within the local private sector housing market. However, private sector housing is not always available in sufficient quantity near the installation, is sometimes prohibitively expensive, or may be in poor condition. Studies indicate most service members prefer off base housing, but significant numbers still choose on base housing due to its substantial economic benefit of being less costly than an off base counterpart. Service members' changing demographics have lead to a need for more MFH on and around military installations. Over the last 50 years, housing supply, funded through MILCON appropriations has not kept pace with housing demand, leading to a chronic shortage of adequate, affordable housing for military families. Chapter IV presents the Military Housing Privatization Initiative (MHPI) as possible solution to this chronic MFH shortage.

IV. MILITARY HOUSING PRIVATIZATION INITIATIVE: (MHPI)

A. INTRODUCTION

This chapter presents the Military Housing Privatization Initiative (MHPI) from legislation, through growing pains, and progression to its current status. It describes twelve privatization authorities, the basic MHPI process, how it is funded, reporting requirements, and several policies that significantly affect the structure of MHPI agreements. Finally, the chapter offers a basic overview of the Air Force, Army and Navy MFH circumstances and their distinct approaches to using the MHPI authorities to improve their MFH inventories.

B. 1996 DEFENSE AUTHORIZATION ACT AND MILITARY HOUSING PRIVATIZATION INITIATIVE (MHPI)

In 1996, Congress and DoD tried something very different from the traditional MILCON approach and different from the old Wherry and Capehart programs. The Military Housing Privatization Initiative (MHPI) was devised to give the Department of Defense the ability to entice private investment by encouraging it to act more like a private enterprise. Just as businesses can be creative and take advantage of local real estate market conditions in customizing development projects, the MHPI was designed to give similar flexibility to DoD. This was intended as a step away from the perceived one-size-fits-all mentality of the earlier programs. (Else, 2001)

1. Background and Three Years of OSD Leadership

Section 2801 of the National Defense Authorization Act for 1996 (Public Law 104-106) created the MHPI as a five-year pilot program, within a 10-year plan to resolve the general military housing problem. Using its “alternative authorizations,” Congress intended to improve military housing quickly and economically by leveraging the Federal investment by encouraging private investment. Originally, the MHPI was centralized within DoD under the Office of the Secretary of Defense (OSD). Because of the complexity inherent in this new approach to military housing construction, the unfamiliarity of DoD contracting personnel with these kinds of negotiations, and new legal, financial, and budget issues that appeared as the program got underway, progress in the negotiation of contracts and in beginning construction was notably slower than

originally envisioned. The first project award, known as NAS Corpus Christi/Kingsville - I (Texas) for 404 units, was consummated in July of 1996. The second, termed Everett-I (Washington) and encompassing 185 housing units, was awarded in March of 1997. In August 1998, a third contract was awarded for 420 units at Lackland Air Force Base, Texas. (Else, 2001)

These slow-paced experiences contributed to a 1997 decision by DoD to extend its original MFH solution target date of 2006, by four years, to 2010. In addition, a 1998 GAO report faulted the cost analysis methodology used by DOD, indicating that actual savings would be considerably less than the Services claimed, and suggested that more effective use could be made of existing private market housing near military installations. By the end of August 1998, more than three years into the five-year program, only three projects had been awarded contracts. (Else, 2001)

In October of 1998, the Secretary of Defense devolved operational responsibility for MHPI to the individual Services, with oversight and final approval authority vested in the Housing Revitalization Support Office (HRSO), under the OSD Office of Competitive Sourcing and Privatization. Between the Lackland award and the approach of the end of the initial MHPI authorization in late 2000, only one additional project, Fort Carson, Colorado, for 2,663 units, was finalized. A follow-up GAO report released in March of 2000 concluded that, because none of the contracted projects had yet been brought into full operation, there was little empirical data by which to assess whether the MHPI would achieve its goal of eliminating inadequate military housing more economically and faster than possible through the use of traditional construction practices. (Else, 2001)

Congressional concern with a perceived lack of results became apparent as MHPI expiration approached in February 2001. However, the Military Construction Appropriations Act for fiscal year 2001 (Public Law 106-246) extended the MHPI until 31 December 2004. With the MHPI pace increasing, the National Defense Authorization Act of 2002 (Public Law 107-107) subsequently extended its term to 31 December 2012, allowing enough time for DoD to complete its MFH privatization program.

The 1994 Defense Authorization Act (Public Law 103-337, Section 2803) provided a Navy-only pilot program of special authorities to allow the formation of limited partnerships with private developers for the purpose of improving MFH. The Public-Private Ventures (PPV) were precursors to the 1996 authorizations and served to pave the way for the DoD-wide MHPI. The Navy initiated solicitations for its first two PPV projects (Everett-I and Kingsville-I) under this law but actually awarded them under the broader MHPI. Provisions of the 1994 law were fully absorbed into the MHPI authorized in 1996.

2. The 12 Alternative Authorizations, or MHPI “Toolbox”

The MHPI includes twelve separate authorities that revive some of the provisions of the earlier construction programs and add to them, while permitting their selective use where they can be most advantageous. These alternative authorizations are listed in descending order from lowest budget impact to highest budget impact. (See Appendix A for the complete definitions of these alternate authorizations from the 1996 Defense Authorization Act, Public Law 104-106.) Note that Section 2872, General Authority, specifies that these twelve authorities apply only to, “family housing units on or near military installations within the United States and its territories and possessions.” The MHPI authorities do not apply to installations located in foreign nations.

- **Conveyance of Real Property:** The Government may transfer title of Federal property to private ownership
- **Unit Size and Type:** Builders are allowed to construct housing in accordance with local building codes, without rank-specific space restrictions
- **Inclusion of Ancillary Support Facilities:** Bids for contracts may incorporate additional amenities such as child care centers and dining facilities, to enhance the attractiveness of the basic housing
- **Payment of Rent by Allotment:** Landlords may receive payment of rents through automatic electronic fund transfer from the appropriate Federal disbursing facility, guaranteeing cash flow
- **Loan Guarantee:** The Government may guarantee up to 80% of the private sector loans arranged by the property developer
- **Direct Loan:** The Government may make a loan directly to a contractor

- **Differential Lease Payment (DLP):** The Government may agree to pay a differential between the BAH paid to Service members and local market rents
- **Investment (Joint Venture):** The Government may take an equity stake in a housing construction enterprise
- **Interim Leases:** The Government may lease private housing units while awaiting the completion of a project
- **Assignment of Service Members:** Service personnel may be assigned to housing in a particular project that they may otherwise not choose to occupy (tenant guarantee)
- **Build to Lease:** The Government may contract for the private construction of a housing project, and then lease its units (similar to Section 801 program)
- **Rental Guarantee:** The Government may guarantee a minimal occupancy rate or rental income for a housing project (similar to the Section 802 program)

3. The MHPI Process

Central features of the MHPI are its flexibility and its decentralized execution. However, projects tend to follow the same general progression. First, the need for additional housing at an installation, either through the renovation of existing housing or construction of new dwellings, is established by a site review and feasibility study conducted by the appropriate Service. This examination includes an evaluation of the local private housing market and a cost/benefit comparison between the use of an MHPI package and traditional construction methods. The results are briefed to the OSD Office of Competitive Sourcing and Privatization. If the concept is judged adequate, it is approved and the Service is authorized to develop an appropriate solicitation proposal. Congress is notified before the completed solicitation is issued to private industry. Congress is again notified when the successful solicitation response is selected and before a contract is awarded. (Else, 2001)

Although the MHPI planning and operations are delegated through DoD to the component services, Congress maintains project approval and oversight authority. To facilitate standardization within and comparability between MHPI projects, John B. Goodman, Deputy Under Secretary for Industrial Affairs and Installations, released a MHPI Policies and Procedures Memo on 09 October 1998. The memo's stated purpose

was to define key events and responsibilities from initial project screening to contract award through post-award oversight and reporting. The memo describes the process required to execute individual privatization projects; policies required of individual projects proposed under MHPI; required program tools and instruments; and the financial feasibility model.

In addition to demonstrating that the installation has a continuing need for MFH, planned MHPI projects must also demonstrate that life cycle cost (LCC) savings will likely result. To gain approval for a MHPI project, without a waiver, estimated LCC must be equal to or less than an identical MILCON funded alternative. The specific OSD policy regarding LCC comparisons is discussed later in this chapter.

4. Funding MHPI

MHPI project funding is provided by Congress in the yearly Defense Authorization Acts, through the Family Housing Improvement Fund, specifically created to support only MHPI projects. The fund receives money from four sources; (1) direct Congressional appropriations when MHPI are approved, (2) Congressionally approved transfers from MILCON accounts when projects originally planned for traditional construction are converted to MHPI projects, (3) proceeds from property conveyances, (4) proceeds from property or facility leases. The fund provides money for MHPI project implementation including planning, solicitation, award, administration and initial Government capital requirements. (Consult Appendix B, Public Law 104 -106, Section 2883 for exact language.)

5. Budget Scoring for MHPI Projects

Each of the authorities created for the MHPI has an associated budget score. The scoring used for the MHPI was drafted to comply with the Federal Credit Reform Act of 1990 and the Budget Enforcement Act of 1990, as interpreted by Office of Management and Budget (OMB) Circular A-11 and specific MHPI Guidelines issued by the OMB on June 25, 1997. These guidelines remained in effect for the first 20 projects using MHPI authorities, and will then be adjusted to incorporate lessons learned. The budget scoring percentages are calculated based on the Government's "degree of exposure", or the statistical probability that a contractor's default on the project will have a financial impact on the Federal budget/deficit. (Else, 2001)

Because of budget scoring, the MHPI tool or tools selected for employment in any given housing project have a significant influence on project's budgetary impact. The amount of budgetary authority that must be allocated to a project is a direct function of those alternative authorizations selected for use. (Else, 2001) Appendix C arranges the twelve alternative authorizations in ascending order of budget impact and indicates those authorities used in the first sixteen MHPI projects with awarded contracts. Thus far, the services have tended away from authorities with high budget scoring and gravitated toward those with lower budget scores.

6. OSD and Congressional MHPI Reporting Requirements

After delegating MHPI operations to the component services, Congress and OSD instituted reporting requirements in order to maintain the pulse of the MHPI program, providing a means for oversight, policy guidance, standardization and information sharing. The primary tools are the Family Housing Master Plans (FHMP) and Program Evaluation Plans (PEP).

a. Family Housing Master Plans

Beginning in July 2000, Congress required each service to submit and then annually update a Family Housing Master Plan (FHMP), demonstrating how they intended to meet OSD's goal of eliminating inadequate housing by 2010. The FHMP addresses all MFH related issues including the service's vision and their road map for achieving MFH adequacy standards. The plan specifics include:

- Each installation's current MFH inventory, condition and requirements
- Estimated costs and method (new MILCON, MILCON renovation, privatization) to bring required MFH up to new adequacy standards
- MILCON and MHPI plans, by installation, by fiscal year
- Surplus MFH disposal plans, by installation, by fiscal year
- Estimated funding required to properly maintain and operate MFH
- BAH requirements associated with units conveyed under MHPI

b. Program Evaluation Plans

Beginning January 2001, OSD's Office of Competitive Sourcing and Privatization, requires each service component to submit a Program Evaluation Plan (PEP), semi-annually (March and September), for all awarded MHPI projects. Information for the PEP flows upward from installations through the service component

level to the HRSO. The PEP is a tool for the services and OSD to evaluate the costs and benefits of MHPI projects, measuring their effectiveness, and evaluating their strengths and weaknesses. Lessons learned from PEPs are disseminated and incorporated into future projects.

7. OSD MHPI Policies

While delegating MHPI operations to the service components, various OSD level offices issued policy guidance memos to standardize the MHPI process and avert problems encountered with earlier housing privatization programs.

a. Property Taxes

Robert Meyer, Director of the Housing Revitalization Support Office, issued a policy memo on 10 July 1998 clarifying property tax treatment when negotiating MHPI deals with private developers. It stated, “since property taxes have a significant impact on potential project cash flows, they must be considered when formulating the project concept.” DoD installation and project leaders are encouraged to work with the private developers in obtaining favorable tax concessions from state and local tax authorities. The memo further states that,

The contractor will be responsible for the payment of any real estate taxes assessed on the project. In the absence of clear, written direction from state and local tax authorities that property taxes are not applicable, or are reduced, the offeror’s proposal shall assume that property taxes will be assessed on the project and include such costs in its financial projections. The offeror’s proposal shall also include a plan for use of any savings realized from an exemption from or the abatement of property taxes on the project, or a failure or inability of the local taxing authority to assess property taxes on the project. The service will favor proposals which dedicate any such savings to enhancement or expansion of the project or which otherwise provide the benefit to the government.

b. Utilities

John B. Goodman, Deputy Under Secretary of Defense for Industrial Affairs and Installations, issued a policy memo on 08 September 1998 clarifying payment of utility services for MHPI projects. In part, the memo stated,

projects under this program must define the amount of rent revenue available to the developer by subtracting from the BAH a predetermined amount set aside for utilities. This allowance for utilities would permit payment of utilities from within the BAH, either directly by the member

or passed through the developer. This method will ensure that developers can appropriately estimate the amount of cash flow used to finance housing privatization projects. Service members who conserve utilities would be able to keep the difference between the allowance and the actual cost, whereas those who exceed the allowance would pay out-of-pocket for excessive usage.

c. Impact Aid

Nicole Bayert, Associate General Counsel for Environment and Installations, issued a memo on 09 February 1999, recommending a school impact aid policy. A local education agency (LEA) receives low-level impact aid for children attending its schools when an installation transfers title to land and existing housing on that land to a developer, and the developer retains title to all new housing structures built on that land under the MHPI. Since the developer owns the land and the dwellings, property taxes apply and low-level aid is paid to the LEA. A LEA receives high-level impact aid for children attending its schools when an installation retains title to the land, leases it to a developer, but transfers title of existing homes to the developer, and the developer retains title to new homes built on the leased land. Even though the developer owns the dwellings, high-level impact aid is paid because the project is exempt from state and local property taxes since the underlying land is still owned by the Federal Government.

d. Life Cycle Costs: (LCC)

Joseph K. Sikes, Director of the Competitive Sourcing and Privatization Office, released a housing privatization life cycle cost policy memo on 11 February 2002.

The stated purpose of the memo is to ensure identified costs are accurate, simple and consistent across the military services to facilitate appropriate comparisons between identical MHPI and MILCON alternatives. Specific guidance outlines LCC estimating methodologies including provisions for utility service, excess BAH recovery, out-year renovations, and project planning/inspections. An appendix to the memo provided the services with a standardized methodology for calculating consistent and reasonable MILCON O&M costs. Sunk costs are defined as including government-owned land and improvement expenditures incurred before project approval and not recoverable regardless of the alternative selected.

e. Leverage

John B. Goodman, Deputy Under Secretary of Defense for Industrial Affairs and Installations, issued a policy memo on 09 October 1998, containing MHPI project leverage requirements. The leverage ratio is a measure of the funds required to complete a housing project under MHPI compared to the amount of funds required to complete a project under traditional MILCON of identical scope and size. To gain approval, a privatization project must obtain a minimum three to one leverage ratio, akin to getting three times as much housing construction and renovation under MHPI as MILCON could provide, or spending only one dollar under MHPI as would require three dollars under MILCON. Leverage ratio is calculated by dividing the estimated MILCON development cost by the MHPI scored amount. Development costs are different from life cycle costs (LCC), and include only the funds immediately required for construction, renovation and demolition.

C. AIR FORCE, ARMY AND NAVY MHPI APPROACHES

With twelve MHPI projects either completed or in process as of 31 December 2001, and several others nearing award, under solicitation, or in planning, discernable patterns have emerged as each service component uses the flexibility the twelve authorities provided to pursue its unique MFH vision. The Air Force is taking a tentative approach, insisting all MHPI projects be 'severable' from the main installation, while still relying on MILCON for the majority of its housing needs. The Army is focusing on large installation privatization efforts under a whole-community concept, using a one-step Request for Qualifications source selection process, and relying on MILCON at most of its smaller installations. The Navy is using Public-Private Ventures in an effort to obtain maximum financial returns for its housing investments and shorter contracts to maintain flexibility. The service components' long-term strategies are outlined below and serve as the basis for analysis. Note that MHPI applies only to military installations within the United States and its territories and possessions, not to installations located in foreign nations.

1. Air Force

The Air Force plans to privatize a total of 32,900 units under 34 different MHPI projects, representing 30% of its total MFH inventory.

a. The Air Force Housing Problem

The total Air Force MFH requirement in 2011 is estimated at approximately 109,000 units, including 62,000 Air Force owned and operated, 14,100 Host Nation owned and 32,900 owned by MHPI partners. In 1999, the total Air Force MFH inventory of 104,937 units included 30,798 adequate units, 65,254 inadequate units (accounting for 62% of the total), and 8,885 units already conveyed as part of the first ten MHPI projects. Revitalizing the remaining 65,254 inadequate units was estimated to cost \$7 billion through traditional MILCON methods, and would take at least 20 years at current funding levels. (AF-FHMP, 1999)

b. Air Force Plan to Remedy the Problem

The Air Force Center for Environmental Excellence (AFCEE) administers the MHPI for the Secretary of the Air Force through their Housing Privatization Office (HPO). The AFCEE-HPO describes its plan as a program that matches Air Force requirements to real estate market opportunities to provide the best value housing, maximizing developer creativity, and returning a transaction with a high potential for successful completion. Under this MHPI plan, private developers own the housing units, located on private land or land leased from the Air Force, and Air Force personnel receive BAH and pay rent to the private developer. Rents are less than BAH rates, with the difference accounting for a utility allowance, designed to keep out-of-pocket expenses at zero for the average tenant. The developer manages and maintains the property for 50 years. Tenants pay utilities directly to the utility provider without government or developer involvement. (AF-FHMP, 1999)

Although the Air Force believes MHPI is a key element to eliminating inadequate MFH, it intends to use traditional MILCON methods to accomplish most of its MFH revitalization. MILCON will renovate 45,650 units or 70% of the remaining inadequate units inventory. Host Nation construction programs in Japan and South Korea will revitalize an additional 3,398 inadequate units, with traditional MILCON used for other overseas requirements, mainly in Germany, Japan and South Korea. MHPI projects will upgrade 16,206 units, in addition to the 8,885 units already privatized, and assume control of almost 8,000 units that are adequate, but intended for privatization. After completing all MHPI projects, almost 33,000 MFH units will reside under privatization,

representing 30% of the total Air Force MFH inventory, having served to upgrade about one-third of the originally inadequate units. The Air Force plans 251 construction and renovation projects, with 34 (14%) being MHPI and 217 (86%) being MILCON. (AF - FHMP, 1999) The Air Force averages 968 units per MHPI deal.

Major General Earnest Robbins, who oversees the Air Force's MHPI program, admits that his service's more tentative approach to MHPI precludes it from meeting the DoD guidance to eliminate inadequate MFH by 2010. He expects the Air Force to eliminate inadequate housing by 2014, primarily due to predicted MILCON funding shortages necessary to upgrade Air Force owned/operated units. Robbins says the Air Force prefers a "balanced approach," preferring privatization only at bases located in strong commercial housing markets, and intending to reinvest savings from MHPI projects into other MILCON projects. Robust commercial housing markets ensure the Air Force and developer could easily obtain civilian tenants or sell the housing units if the Air Force no longer needs them. (Cahlink, 2001)

The Air Force uses three criteria to determine the appropriate investment strategy for revitalizing housing at each base. If all criteria are met, privatization is generally selected. If any one of the three criteria is not met, the traditional MILCON option is generally selected.

(1) Severability. The Air Force requires privatized family housing to be physically separate (either geographically separate or severable) from other installation functions. To be eligible for privatization, it must be possible, but not required, to place a fence around the housing area and to obtain access to the area from a public road. This ensures that if, at a later date, the demand by military families is insufficient to fill housing, alternate civilian renters could access the housing estate without entering the operational portion of the installation. (AF -FHMP, 1999) This is a significant difference between the Air Force's MHPI approach and that of the Army and Navy.

(2) Economic Feasibility – 'Scored' Cost. The privatization candidate must obtain the minimum three to one leverage ratio required by DoD policy. The scored cost, under OMB guidance, cannot exceed one-third of the estimated MILCON cost to complete a project of identical scope. (AF -FHMP, 1999)

(3) Economic Feasibility – Life Cycle Costs. The LCC associated with privatization must be less than the LCC for an identical MILCON project. The Air Force defines the MHPI LCC as the sum of the OMB scored costs and the net present value (NPV) of the expected BAH paid to service members living in the privatized units. Government ownership LCC is the sum of the MILCON construction costs and the NPV of all estimated future costs for maintenance, repair, utility, management and any other services provided over the life of the units. (AF-FHMP, 1999)

2. Army

The Army plans to privatize 71,790 units under 28 different MHPI projects, representing 58% of its total MFH inventory. (Army-FHMP, 2002)

a. The Army Housing Problem

In 2001, the Army maintained a worldwide inventory of 122,977 MFH units, and predicted a need for 123,589 units by 2009. These units include 34,575 adequate units, 58,860 inadequate units (accounting for 48% of the total), 4,080 leased under the section 801 program, 9,735 leased overseas, and 15,727 privatized under the Army's first four MHPI projects. Revitalizing the remaining inadequate units was estimated to cost \$6 billion using solely traditional MILCON funding and would take at least 20 years to complete. (Army-FHMP, 2001)

b. Army Plan to Remedy the Problem

Although its first MHPI contract was not awarded until September 1999, the Army has fully embraced housing privatization as the best way to solve the MFH problem, quickly and efficiently. The Army is moving forward rapidly with plans to entirely privatize most of its large installations, eliminating all inadequate MFH by 2008. The Army plans MILCON projects at overseas locations and smaller CONUS installations.

By 2008, Army MHPI projects will control 71,790 privatized MFH units, located at 33 installations in the United States, accounting for 58% of the Army's total MFH inventory, and over three-fourths of its domestic inventory. This is a slight reduction from the MHPI plan set forth in 1998, calling for the privatization of 85,000 units at 43 installations. The reduction resulted from Congressional requests to slow the

effort, suggesting MHPI be used to supplement MILCON, not replace it. The Army averages 2,564 MFH units under each MHPI contract.

The first four MHPI projects were Forts Carson, Hood, Lewis and Meade, accounting for 15,727 units. They were carefully chosen and designated as pilots because they reflected diverse market conditions, which would serve to develop lessons learned and sound methodologies for aggressively completing the remaining 24 MHPI projects, accounting for an additional 56,063 units, in just three years.

(1) Whole Base Concept. The Army's MHPI umbrella program is called Residential Communities Initiative (RCI) and seeks to develop entire communities, not just housing units. Under RCI, the Army establishes long-term (50-year) business relationships with private sector developers for the purpose of improving entire base communities. Within this holistic approach, one developer hired the same architect who designed the Olympic village for the recent summer games in Sydney, Australia. The Army provides long-term interests in the form of both land leases and existing MFH asset conveyance to the developers. In turn, the developers become whole-community managers and received tenants BAH as rent.

(2) RFQ Source Selection Process. To promote a true partnering effort between the Army and the developer, the solicitation process was modified after the Army's first MHPI project at Fort Carson, which used a traditional request for proposal (RFP) concept. RCI solicitations are now handled using a single-step Request for Qualifications (RFQ) process. The RFQ is in sharp contrast to the more traditional Request for Proposal (RFP) approach, where private sector offerors submit very detailed development proposals in response to a detailed Government request. Under the RFQ framework, all interested contractors submit a qualification package, which is a much shorter, less detailed, more general conceptual plan, along with a summary of significant experience and relevant qualifications. From the body of qualification packages, the Army selects a single "development partner" and enters into one-on-one negotiations for the final design and contract. The RFQ process emphasizes the developer's experience, preliminary concept appeal, their financial and organizational capabilities, past performance, cost estimates, and their ability and plan to use small business concerns. Following source selection, the Army and contractor work closely for

up to six months, quantifying detailed plans and forging a blueprint for revitalizing the installation's residential community. The actual contract is awarded and construction begun after the detailed plans are completed and approved by Congress.

3. Navy

The Navy intends to privatize 21,985 units under 18 different MHPI agreements, representing approximately one-third of its total MFH inventory. (Navy-FHMP, 2001) These Navy figures do not include the Marine Corps MFH.

a. The Navy Housing Problem

In 2001, the Navy maintained a worldwide inventory of 60,133 MFH units, and predicted a need for 68,499 units by 2005. The current inventory includes 32,390 adequate units and 27,743 inadequate units (accounting for 46% of the total). The Navy also has access to 589 units privatized under its first two MHPI projects. Revitalizing the remaining inadequate units was estimated to cost \$3.8 billion using solely traditional MILCON funding and would take at least 20 years to complete. (Navy-FHMP, 2001)

b. Navy Plan to Remedy the Problem

The Navy pioneered the MHPI effort in 1994 when it obtained authority from Congress to create Public-Private Ventures (PPV) as a way to mitigate its MFH problems. Progress was slow, with one PPV contract awarded in 1996 and one in 1997, making 589 additional units available to Navy families. The PPV authorities, originally granted to the Navy only, were included in the 1996 MHPI legislation and made available to all services.

By 2005, the Navy plans to complete sixteen additional PPV deals at eleven bases, with some bases having two or three different PPV contracts to account for all of the privatized housing. The Navy plans to convey 8,669 adequate units to PPV between 2001 and 2010. PPV renovates 5,144 inadequate units (27% of 18,801), while MILCON renovates 13,657 units. New PPV construction replaces 3,739 (67% of 5,569) demolished units, while MILCON replaces 1,830 demolished units. PPV and MILCON will demolish and not replace 3,373 inadequate units at bases with excess capacity. Between 2001 and 2010, PPV reduces the overall MFH deficit at underserved bases by 3,844 units (88% of 4,361) through new construction, while MILCON reduces the MFH

deficit by only 517 units. (Navy-FHMP, 2001) The Navy averages 1,221 units under each PPV agreement.

(1) Public-Private Ventures (PPV). The Navy views privatization not only as a way to improve MFH, but also as an investment opportunity. By forming limited liability companies with developers, the PPV arrangements require the Navy to accept a greater financial burden, but enable it to share in the revenues (primarily BAH, but also liquidation proceeds) generated by the project. The Navy's revenue share is negotiated up front and may be used for repairs, reserve accounts, or back to the Navy for housing needs at other Navy locations. The deals involve both on-base government land and private land, and include many of the same features pursued by the Army and Air Force.

(2) Short-Term Contracts Ending in Liquidation. While some Navy deals are for 30 to 50 years, with the housing reverting to Navy control at termination, some are also much shorter, with provisions to sell the property on the open real estate market. The shorter deals, at smaller bases and encompassing fewer units, are for ten to fifteen years and allow for the sale of individual units as early as the sixth year of operations. Current residents have purchase priority and may be offered reduced closing costs and relief from real estate commissions. When the deal reaches full term, the PPV liquidates the remaining units on the open market. Because it is a full business partner in the PPV, with a significant financial stake, the Navy receives a substantial portion of the liquidation proceeds. These proceeds may be reinvested in another local PPV if a housing shortage still persists, or they may be invested in a PPV at a different Navy base with MFH shortages.

4. Marine Corps

This thesis does not detail the Marine Corps' use of the MHPI authorities because it has fewer locations than the other three services, resulting in only one awarded project and two in planning as of 31 December 2001.

D. CHAPTER SUMMARY

Due to the complexity of the deals, the unfamiliarity of DoD business managers with these types of deals, and the uncharted policy and cultural waters, the MHPI began at a turtle's pace, but has gained speed and momentum, especially after delegation from

OSD to the service component level. Although OSD maintains oversight and sets policy, the distinct approaches taken by the Air Force, Army and Navy demonstrate the inherent flexibility built into the MHPI program and their long-standing propensity to differentiate themselves from one another. The services have recognized the MHPI authorities as a unique opportunity to improve their long-standing MFH circumstances, and have taken aggressive steps to institute the program, improving the overall quality of life for members and their families.

V. ANALYSIS

A. INTRODUCTION

MHPI has similarities to and includes many improvements from the Wherry, Capehart, Sections 801 and 802 programs. Its potential is quite promising, but the program is still immature, with only a minimum amount of trending analysis possible since it has yet to develop a meaningful operating history. Numerous legislation and government policies effect MHPI, with both critics and supporters concerned about the many assumptions that are based on estimates of future events.

B. MILCON INSUFFICIENCY

Although other programs such as Wherry, Capehart, and Section 801/802 have come and gone, DoD has relied upon MILCON appropriations since 1949 as the primary method to supplement the private rental market, thereby ensuring military families are adequately housed. However, Government owned and operated housing has consistently failed to solve the MFH problem. Given its political nature, MILCON is squeezed out by other looming Federal budget priorities such as Social Security, Medicare/Medicaid, possible prescription drug coverage, and other social programs. Additionally, within the constrained defense budget, MFH is considered important but competes with other priorities such as homeland security, endless global stability/support operations, the 1990's procurement holiday hang over effects, and transformation initiatives. Looking forward, MILCON is unlikely to ever receive the funding required to solve the MFH problem.

C. MHPI IMPROVES MFH

Although not intended as a complete replacement for the traditional MFH owned and operated by DoD, the MHPI program is rapidly expanding its inventory and influence among service and installation leaders and military families. Based on awarded projects and those currently planned for or in solicitation, MHPI will account for over 123,000 units by 2010, easily surpassing the number provided by either the Wherry or the Capehart programs.

1. MHPI is Faster Than MILCON

In 1992, GAO informed Congress that 72% of MFH was over 25 years old, and that half of DoD's 400,000 MFH units would need major renovations over the next ten years, at a cost of \$11 billion. (GAO-92-09FS) Despite these warnings, the condition of MFH had changed little prior to MHPI implementation. In fact, when viewed as a percentage of total inventories, the inadequacy of MFH, as well as the financial and time costs of eliminating the problem actually increased throughout the 1990's. Using a combination of MILCON and MHPI projects, DoD plans to eliminate inadequate MFH by 2010. While the success or failure of this plan remains to be realized, and is highly dependant on both MILCON and BAH funding streams, the likelihood of success seems greater than at any time since Capehart. The first thirteen MHPI projects achieved an average leverage of over six to one, providing six times as much construction or renovation capital as would have been available under MILCON. This leverage is an example of MHPI's ability to dramatically increase the rate of MFH replacement and renovation.

2. MHPI is (Skeptically) Less Costly Than MILCON

While each entity involved arrives at differing results, all agree that, on average, MHPI projects have lower life cycle costs (LCC) than identical MILCON funded projects. Based on consolidated Program Evaluation Plan (PEP) data submitted by individual MHPI projects, the HRSO calculates LCC savings of 14 to 16% for the first thirteen MHPI awarded projects. (PEP, 2001)

GAO recently estimated aggregate LCC savings for the first ten awarded projects to be slightly less than 5%, with three of the ten projects being more expensive than their MILCON alternatives, citing three reasons for the differing results. First, GAO analysis used current cost estimates, whereas the services used cost estimates available when they prepared the analysis, months or years prior to project approval. Second, GAO considered the increased costs of MHPI resulting from the BAH increase initiative. Third, service LCC were inconsistently prepared and did not include all relevant costs because they were completed before DoD published its February 2002 LCC policy memo. (GAO-02-624)

a. Life Cycle Cost Components

In calculating its LCC estimates, GAO primarily adhered to DoD's LCC policy memo guidelines, but deviated from the policy in two areas, concluding that these two areas were predisposed to favor MHPI projects. GAO included contract oversight and administrative cost estimates within the MHPI analysis, where DoD had not included them, which increased the aggregate MHPI LCC estimates. GAO also applied an alternative methodology for determining operations and maintenance costs for the MILCON analysis, decreasing the aggregate MILCON LCC estimates. DoD has since added estimated contract oversight costs to its LCC analysis policy. (GAO-02-624)

Another criticism of MHPI LCC estimates is that DoD does not include some installation contributions to MHPI projects, such as property conveyances or nominal land leases. Because the conveyance of existing government-owned housing (including adequate, inadequate and condemned), government land, or the forgone private market value of nominal land leases do not require government expenditures and do not affect the Federal budget, the value of the property conveyed or leased is not included in budgetary scores, leverage calculations or LCC analysis. Including these sunk costs or estimating the true market value of nominally leased land would increase the LCC estimates of MHPI projects, making them less favorable when compared to their MILCON counterparts. However, DoD argues that its contributions to MHPI projects, whether scored or not, are key ingredients making the project financially feasible for developers. DoD also stated that most of the MFH units conveyed require either renovation or demolition, increasing costs under both the MHPI or MILCON alternatives. (GAO-02-624)

b. Long-Term LCC Estimation Difficulties

A final LCC consideration is that because these analyses use numerous assumptions and estimates, projected over a thirty to fifty year contract life, actual costs may vary substantially from the initial analysis results. Even small changes in a single LCC estimating variable can have dramatic impact on the aggregate LCC outcome when projected over the life of the contract. In hindsight, actual LCC may be significantly higher or lower than initially estimated. Also, once an alternative (MHPI or MILCON) is chosen and initiated, its results can be recorded and measured, but the alternative not

selected can still only be estimated. The bottom line is that the many assumptions and uncertainties in the estimate components used to determine LCC make it difficult to achieve reliable estimates of costs over the terms of an extended contract. (GAO -02-624)

c. Building Up To Cost Ceilings

Historical privatization examples may explain why MHPI life cycle costs tend to be marginally less costly than MILCON alternatives. To gain approval and funding, section 801/802 projects were required to demonstrate at least a 5% construction savings when compared to an identical MILCON alternative. Based on the MILCON estimate, DoD set a maximum allowable construction cost ensuring that all successful 801/802 bids would be less costly than the MILCON alternative. DoD also provided the rationale, assumptions and methodologies for determining these ceiling costs to potential bidders as part of the request for proposal package. Since DoD fixed the maximum price and the quantity of housing, competition for awards tended to focus on providing the most housing quality within the ceiling cost. GAO found this to be the primary reason why section 801/802 constructions were only marginally less costly than MILCON. (GAO-87-13BR) The Wherry and Capehart programs also had construction ceiling costs, based on FHA mortgage insurance limits, influencing the sizes, types and quality of the housing produced. This same phenomenon may carry over to MHPI projects with services and developers attempting to provide as much square footage, amenities and community perks as possible under the BAH cash flow models.

d. Consideration Other Than Cost

While MHPI tend to be less costly than a MILCON project, it appears to be more costly than similar housing provided through BAH, even after considering the effects of the BAH initiative. Using the same cost data from multiple studies presented in Chapter III, and assuming that MHPI is 10% less costly than MILCON, MHPI is still 17 to 34% more costly than obtaining housing from the private sector market through BAH. This comparison may only be valid for incremental changes to an installation's MFH inventory, and not valid when considering whole-base privatizations.

Responding to a GAO report, published in March 2000, Randall Yim, Deputy Under Secretary of Defense for Installations, summarized the ongoing debate regarding the prospects for MHPI LCC savings. The report described DoD's LCC

savings analyses as incomplete, inaccurate and overstated, and revised lofty savings estimates downward.

Mr. Yim wrote that,

The GAO report states that the life cycle analyses for the (12) initial projects indicate long-term savings of about 11% when compared to costs of MILCON. We consider these savings to be an important benefit of the program. However, of equal importance is the need to fix the inadequate housing inventory of over 180,000 units within a reasonable period of time. As we pointed out in our comments to the GAO report of June 1998, these economic analyses assume the availability of funding for MILCON projects adequate to construct comparable housing projects. An important, albeit unfortunate, underlying reality is that such funding has not been available and that a paramount benefit of privatization is the role early delivery of adequate housing provides in improving the quality of life of our members. We simply cannot meet our 2010 goal without a substantive privatization program. (GAO-00-71)

Other DoD officials, before and after Mr. Yim, have echoed his comments. Any savings realized through MHPI are better than the more expensive MILCON approach. And, even if only marginally less costly, MHPI is available, whereas the necessary MILCON appropriations are simply not available in sufficient amounts to fix the MFH inadequacy problem by 2010 target date.

3. MFH Increases MFH Inventories

On multiple occasions over the last 25 years, Congress asked GAO to examine requests by DoD for additional MFH, and GAO has consistently, with few exceptions, criticized DoD for overestimating its need for MFH. GAO's primary argument, supported by other oversight and analysis agencies, is that DoD uses inconsistent and flawed methodologies for determining its total MFH requirements. DoD and service component analysis consistently underestimate the quantity and quality of housing available to military families in the real estate markets surrounding installations, which in turn, overestimates the need for MFH on the installation. Too much MFH, coupled with data showing that it costs DoD significantly more than private sector housing (funded through BAH), causes DoD to overspend on housing programs and results in significant economic disparity between those who live in MFH and those who live in private sector

housing. (sources include multiple GAO Reports, CNA and DoD IG Studies from 1978 to 2002)

[This thesis does not question the MFH requirements determination process, which is a complicated matter that is closely related to the MHPI program, but is outside the scope of this thesis.]

After considering the existing MFH inventory and that adequate housing is available to military families in the local private sector market, DoD's stated policy is to build and maintain no more than 90% of the total MFH requirement at an installation. With consideration to adequate conveyances, demolitions, renovations and new construction, the first thirteen awarded MHPI projects increased their installation's MFH inventory by 11%, reflecting the services' belief that an adequate quantity and quality of housing is not available to military families in the local markets surrounding these thirteen installations. (PEP, 2001)

D. BUDGET SCORING, LEVERAGE AND FINANCING CHOICES

In 1990, the Air Force labeled 67,000 of its MFH units substandard, but had received inadequate MILCON funding over the recent years to renovate and replace the units. Searching for a solution to its MFH problem, the Air Force proposed a Capehart-type installment-purchase financing plan to supplement its MILCON appropriations. An essential element of the program was that budget authority would not be accounted for in the year that funds were authorized, but rather in the year that the payments were due. Supported by GAO, OMB rejected the proposal as inconsistent with the Budget Enforcement Act and its own budget scoring guidelines. The Air Force abandoned its new Capehart plan. (GAO-91-181)

1. Budget Scoring

Just as budget scoring affected the Sections 801 and 802 programs' demise and prevented Capehart's resurgence, it also impacted the MHPI projects significantly. Regardless of the LCC estimates, leverage, or other advantages, an MHPI project must be 'affordable' under OMB's budget scoring rules. Essentially, MHPI projects are made affordable because their largest cash flow contributor is BAH, which is not budget scored since it is only paid to service members with families. If the service member is eliminated due to force reductions, DoD and Congress (and future Congresses) no longer

incur the financial obligation of his BAH. Except when sections 2874, 2876 or 2882 (a) and (b) are used, there is no direct obligation for DoD to pay any recurring fees to the developer. Although authorized under MHPI, these three authorities have not yet been used in an awarded contract, but they may fill critical gaps in some future extenuating circumstance.

After reviewing Appendix C of this thesis, it is readily apparent that DoD intentionally avoids using those MHPI authorities that create the greatest budget scoring impact. The first authorities of choice are those with little or no budget scoring impact, such as sections 2878, 2881 and 2888. While these authorities add value to the project by optimizing the overall deal by enhancing tenant quality of life or reducing developers' financial uncertainty, they provide little cash to developers for the immediate needs of new construction and major renovations, which is the core function of the MHPI.

2. Financing Choices

To form the basic financial structure of the deals, the services primarily use direct equity investments (S2875) or direct loans (S2873) to fill the development gap. The development gap is defined as the difference between the MHPI project's total development cost, and the sum of both the private sector equity and the private sector financing available to the developer. (Yim, 2000)

With moderate to high budget scores, the Air Force and Marine Corps favor debt structures. They provide the maximum financial capacity to the developers upfront, but cash flow back to the service component in later years is limited to nominal interest payments and debt repayment. Thirty to forty year repayment terms for these loans are similar to or slightly longer than private sector loans. Developers find the direct government loans highly attractive because the interest rates range from 0 to 4%, which is much lower than the private sector rates ranging from 6 to 8.5%. Three projects even include interest payments only, with principle payments deferred, for the first ten years of the loan term.

Equity structures, favored by the Navy's PPV, involve a larger service financial commitment to the project upfront, but are expected to provide a greater cash flow back to the project and the service in the out years. The Navy plans to use the higher cash flow

from BAH streams and unit liquidations to recoup their initial equity investments and reinvest in future PPV's if they are needed. The Army used both debt and equity financing on its first two projects, but required neither in its recently awarded projects at Forts Meade and Lewis. On these projects, conveyance of existing units and cash flows from higher anticipated BAH rates resulted in no development gap requiring additional debt or equity from appropriated funds.

3. Leverage

Leverage is a demonstration of obtaining greater value from the available appropriations. DoD policy defines three to one as the minimum acceptable leverage ratio. Leverage ratio is calculated by dividing the estimated MILCON development cost by the MHPI scored amount. The two projects must be of identical scope and size.

While leverage is a useful yardstick with which to measure and compare MHPI potential, its purity as a true gage is slightly suspect. It is important to note a distinction between the two comparable figures in this calculation. The MILCON development cost numerator is relatively fixed. It does not include all estimated LCC, primarily including only those funds required upfront and necessary for construction, renovation and demolition. The MHPI denominator is much more variable, including only the 'scored' amount for the NPV of its LCC, making it a function of the LCC estimates, the authorities used to pay for those LCC, and the degree of financial risk exposure the Government incurs from those authorities.

4. Scoring and Leverage Effects

The actual leverage varies across awarded projects depending on the basic financial structure used (equity or debt) and the number of existing units conveyed to the developer. Thus far, MHPI has achieved an average leverage ratio of 6.4:1, with individual project leverages ranging from 3:1 to 20:1. Fort Carson and Lackland AFB dubiously obtained the highest leverage ratios at 20:1 and 8:1, respectively, due to a lack of clear scoring policy. Lackland was close to award and Carson had progressed substantially through the solicitation process when OMB published its final MHPI budget scoring guidance in June 1997. The memo requires the NPV of installation utility services provided to the privatization project be scored, and funds appropriated in the year of contract award. While both Lackland and Carson provide installation utility

services to their MHPI projects, at no cost to the developer or tenants, these costs are not included in their budget scores. Budget scoring these utility provisions reduces their leverage ratios to less than 3:1, and reduces the average leverage of all awarded projects to approximately 4:1. (GAO-02-624) More recent MHPI project awards, after the OMB scoring policy publishing, indicate ratios much closer to the 3:1 threshold.

Direct loans also have a varying effect of budget scores and actual costs. Direct loan budget scores range from approximately 30%, up to 100% of the loan amount, based on the predicted risk of default, and the estimated loss to the Government if default occurs. If the project developer successfully repays the loan, Government losses are zero and the funds appropriated to cover the possibility of loss are not spent. Conversely, the Government's financial liability exceeds the scored amount if default occurs, and in a greater dollar amount than scored. So, while obtaining funding appropriations make budget scoring necessary, it should not eclipse LCC and tenant satisfaction as the main determinants of project success.

E. BAH IMPACT ON HOUSING DECISIONS

Without question, BAH is the single most important element of the MHPI program because it represents cash flowing into the projects to pay all costs, including construction, debt service, maintenance, management, utilities and contractor profit. It is based on the targeted tenants' rank, and is the primary consideration for all housing decisions made by both installation managers and DoD leaders, and service members, both on base and off base.

1. Higher BAH Makes Privatization More Attractive

As BAH rates adjust upward under the out-of-pocket elimination initiative, both developers and the services should find MHPI projects more feasible as the cash flow increases. Both industry and Government officials echo this thought.

Chris Hunt, executive vice president of Hunt Construction, an El Paso developer that is working on Air Force and Navy housing privatization projects, says the military housing deals are "like an annuity" because they provide a steady stream of income over a long period. (Cahlink, 2001) "The genius of this program is using the housing allowances as a form of revenue for developers," says Mahlon Apgar, former Assistant Secretary of the Army for Installations and Environment. (Cahlink, 2001)

Rising BAH also reduces the need for DoD's equity or loan contributions at project inception. With higher anticipated future cash flows from higher tenant BAH rates, private developers may find more private equity and loans available to them, at lower interest rates. This condition shrinks the development gap, reducing DoD's upfront financial contributions to the project, decreasing budget scores, and increasing leverage ratios, making more financial resources available to fund other service priorities. The Army recently awarded projects at Forts Meade and Lewis requiring no cash or loan investments, beyond existing unit conveyances.

2. Higher BAH Reduces the Need for MFH

Ironically, while higher BAH rates make MHPI projects more attractive to developers, and more feasible for DoD and installation leaders, they may also reduce the need for MFH. This phenomenon is explained through basic economic supply-demand theory. The potential effects of higher BAH rates are most dramatic near installations located in normal, functioning real estate markets. Higher BAH rates may have little or no effect in isolated locations, or in areas with severe building restrictions due to land or water shortages.

In 1990, GAO endorsed housing allowances (BAH) as the preferred approach to provide housing to military families. Among other reasons, GAO cited the short-term flexibility BAH allows in adjusting to DoD's changing needs, and the flexibility offered to service members in selecting, from a variety of options, that housing that best meets their specific needs. (GAO-90-30)

GAO also believes that the BAH increases will ultimately change the composition of the MFH occupants since demographics are the primary determinant of demand for MFH. Those who most aggressively seek and occupy MFH include junior and mid-grade enlisted personnel, those with spouses that do not work outside the home, and those with greater than average number of children. (GAO-01-684)

a. Higher BAH Rates Make Private Rental More Affordable

Many studies indicate that the cost differential, represented by out-of-pocket expenses, is the primary reason most service members choose to pursue on base housing. However, the BAH initiative seeks to eliminate this cost differential by 2005, making off base rentals more affordable. With this economic incentive removed from the

equation, military families will meet their housing needs based on the remaining choice factors. Many service members, who previously sought on base housing, may now prefer and opt for a rental unit in the local private sector market, reducing the demand and need for DoD sponsored MFH, either MILCON or MHPI units. (GAO -01-684)

Additionally, higher BAH rates make more money available to service members to pursue rental housing and make ownership of rental property more lucrative. When business enterprise becomes more profitable, more firms enter the market over time, increasing the supply of rental housing. The supply increases to meet market demand, allowing those service members on the margin to obtain civilian rentals rather than being forced to accept government quarters. These two factors, an increased demand for private sector rentals and increased profitability from owning private sector rentals, both caused by higher BAH rates, may reduce the need, demand and desirability of both MILCON and MHPI units. (GAO -01-684)

b. Higher BAH Rates Make Home Ownership More Feasible

In a 1995 internal housing study, DoD policy makers expressed long-standing concerns regarding the ability of service members to purchase homes. Military families are less than half as likely to purchase their own home than are civilian families of comparable educational and income levels. Although home ownership increases (more than doubles) with rank and time-in-service, it remains significantly lower than civilian ownership, even among the most senior service levels. Service members cited financial resource limitations and frequent moves as the primary reasons for not pursuing home ownership. Over half of the current MFH residents simply felt they could not afford to own homes. (RAND, 1999)

Higher BAH rates may assuage some financial concerns by providing a greater resource cushion to meet the unexpected and unpredictable costs of home ownership, in addition to meeting regular mortgage, insurance and utility payments. On the margin, some service members who previously opted for military or rental housing, because they felt purchasing was unaffordable, may now choose to purchase, reducing the demand for the other two housing components. (GAO -01-684) Home ownership affordability is not only beneficial to military families, but is also in keeping with the broader Federal policy of encouraging home ownership through the tax code,

Government organizations like HUD/FHA, and quasi-government organizations like Fannie Mae and Freddie Mac.

c. Tax Implications of Higher BAH Rates

Increasing BAH rates is an effective method to increase overall compensation to most service members. Since BAH is not taxed at any level, every dollar of BAH increases represents one additional dollar of benefit available to the service member. BAH increases directly benefit the two-thirds of all military families who live off base whether they actually spend the additional BAH on housing-related expenses or other family priorities. Service members living in MFH may or may not benefit from BAH increases. Those living in traditional MILCON housing will not benefit from higher BAH rates because their MFH is not funded through BAH. Those living in or moving into MHPI units may experience larger or higher quality units, with more amenities than the MHPI project would otherwise have under the lower BAH rates.

F. LOCKBOXES AND WINDFALLS

Concerns about government contractors earning windfall profits at taxpayers' expense have endured throughout our nation's history, and were a major factor in the Wherry program's demise. Similar concerns abound regarding MHPI as well. However, both DoD and Congress have also learned that 'profit' is not a profane word, and that profit is necessary for a developer's (and project's) long-term viability. Unlike the Wherry deals that provided little or no developer profits during the early years, MHPI contracts are structured to allow developers to earn an agreed upon profit margin throughout the project's life.

1. Lockbox Concept

MHPI contracts include "lockbox" provisions to facilitate the accumulation and control of project cash flows, limiting the prospects for unreasonably high contractor profits and ensuring enough capital remains within the project to maintain it. All project income is deposited into the lockbox account, held by an escrow agent. Use of the lockbox funds is governed by the contractual agreement that sets the application priority for these funds. This cascading cash flow ensures high priority accounts are fully funded before money begins flowing into the lower priority accounts. The general priority order

begins with normal operating expenses, followed by debt service, maintenance reserves, reinvestments, enhancements and lastly contractor profit.

The lockbox concept for protecting DoD's long-term interests is solid, but not perfect. In addition to the agreed upon profits, contractors may also earn additional 'profits' from overpriced service fees paid in the form of normal operating expenses. Most contracts include these service fees, labeled daily management and project oversight fees, property management incentive fees, and asset management fees, that are paid to the developer for services integral to the project's operation. The use and price of these fees varies significantly from project to project. While the services are generally considered necessary to the project's management and operation, contractors may realize outsized profits if the scope and amount of these fees are not appropriately scrutinized and priced when negotiating the contracts.

2. Windfall Profits from BAH Rate Increases

Since BAH forms the basis for MHPI cash flows, BAH rates are critical for project viability. The first privatization projects, Everett-I and Kingsville-I were structured around the previous housing allowance system (BAQ/VHA) and previous rate schedules, which did not provide enough cash flow to meet project requirements. To supplement service members' housing allowances, the Navy used differential lease payment (DLP) authority to meet this cash flow gap. With the exception of San Diego, located in an extremely high-cost area, subsequent deals were structured to avoid the need for DLP, mainly due to their high budget scores.

Until announcement of the BAH rate increase in January 2000, housing allowances historically covered about 80-85% of total housing costs, with the service member paying the remaining 15-20% from other income sources. As BAH rates increase, eliminating out of pocket expenses by 2005, cash flows into MHPI projects will increase proportionally. Based on the historical coverage rate, few within or without MHPI projects could have anticipated the BAH increase initiative, and planned for it in their MHPI contract agreements. As a result, contracts for seven of the first ten projects (excluding Kingsville-I and Everett-I) did not include specific provisions to limit developer profits stemming from the increased rental revenue generated from higher BAH rates. On average, the seven developers receive approximately 28% of the

additional revenue, translating to \$369 million over the contracts' life, with Lackland's developer receiving 100% of the additional revenue and Fort Hood's developer receiving only 5%. (GAO-02-624) While some may view this condition as a failure to anticipate or hedge against future events, other may perceive it as good news, since contractors anticipate receiving only 28% of the unforeseen revenue increases, with the remaining 72% funding reinvestments such as renovations, improvements and expansions. All MHPI contracts now include mechanisms for capturing increases in project revenues.

G. PROPERTY TAXES, IMPACT AID AND UTILITY SERVICES

Property taxes and utility services are implicitly accounted for as part of BAH payments to service members residing in private sector housing and payment responsibility rests with the property owner. As discussed in Chapter III however, utility service and school impact aid account for a significant portion of traditional MFH and are paid by DoD. Since MHPI is a hybrid between private sector and traditional MFH, its treatment of these cost elements is also a hybrid between government, developer and tenant responsibility.

1. Property Taxes and Impact Aid

Based upon 1950's lessons where property tax issues finally derailed the struggling Wherry program, the DoD policies concerning property taxes and impact aid, which encourage early and open negotiations, seem to have been successful in preventing disputes between DoD, local governments and contractors. The seven projects located on private land are subject to low-level impact aid and have experienced some civilian occupancy. The seven projects built on government land leased to developers are subject to high-level impact aid and have maintained 100% military tenant occupancy. An issue that has not been contested yet is whether DoD is obligated to pay high-level impact aid for the children of civilians living in MHPI housing. Theoretically, since Section 2882, (a) and (b), Assignment of Members, have not been used yet to guarantee full occupancy, civilian families could rent MHPI units if military family demand is inadequate to fill them. If these civilian-rented units are located on Federal land leased to the MHPI developer, and exempt from local property taxes, DoD may become responsible for paying high-level impact aid to the local LEA for these civilian families, while

simultaneously paying BAH (including implicit property taxes) to a military family renting or owning housing in the local market.

2. Utilities

Utility services represent a significant component of total housing costs, accounting for 10 to 20% of total housing cost in the private sector and about 30% of operations and maintenance costs for MFH. Until the recent BAH rate increase initiative, the historical 80-85% housing allowance coverage ratio was generally perceived as enough to pay for the housing unit rent, with the service member's out of pocket contribution paying for utilities and renters insurance expenses. One commonly cited advantage of living in military housing is the unlimited provision of utilities by the installation, at no expense to the occupants.

a. DoD Provides MFH Utilities

DoD's long-standing policy regarding utility provisions for MFH stems in part from concern that charging for utilities places an unfair burden on families assigned to MFH units that are not well insulated. To promote conservation, the department relies on vigorous public awareness campaigns and installs energy-efficient features in its housing. Nonetheless, DoD MFH utility costs are substantially higher than equivalent private sector utility costs. Not basing utility charges on usage appears to be a major factor in explaining higher MFH costs. According to some estimates, private sector rental unit utility consumption drops 20% when occupants become responsible for their own utility costs. Additionally, most DoD leaders believe that a program to charge MFH occupants for utility usage would be negatively received and seen as an erosion of service benefits. (CBO, 1993)

b. Utility Policy and Legislation Under MHPI

Fort Carson and Lackland AFB contributed utilities, free of charge to both tenants and developers, in their MHPI projects for two reasons. First, the projects are located on Federal land with existing installation utilities service infrastructure. Second, when these two deals were negotiated, tenants' housing allowances were inadequate to pay for all the costs associated with the projects, including utilities. The Army and Air Force chose the free utility provision, which had no budget scoring impact at the time, through the installations' existing network rather than differential lease payments, or

other budget scored authorities, to fill the development gap. They also avoided making utilities a tenant responsibility fearing it would be viewed as benefit erosion, potentially reducing occupancy rates and morale.

Despite DoD policies promoting utility conservation and cost reductions, free utility provision to MHPI developers was permissible, without LCC or budget scoring impact, until OMB published its scoring guidance in June 1997. The OMB policy now requires that MHPI project scores include the NPV of all estimated utility costs over the contract life. The Carson and Lackland deals gained exemption from the scoring rules because they had progressed far enough through the solicitation and negotiation process that requiring their compliance would have substantially altered the conditions of the deal and necessitated project cancellation and re-start, thereby unduly delaying them. As mentioned earlier, the leverage ratio for both Carson and Lackland would have been dramatically lower if utility provisions had been scored in the cases. (GAO-02-624)

In 1999, DoD spent over \$2.2 billion buying energy for its installations. (Yim, 2000) Because of its significant expense and government-wide energy conservation policies, DoD continually searches for ways to reduce energy costs. The most recent initiatives include a myriad of conservation efforts and plans for the privatization of most installation utility services. Further evidence of DoD's initiative to control and reduce utility costs is evidenced in the addition of Section 2872(a), Utilities and Services, to the MHPI authorities as part of the 2001 Defense Authorization Act. Section 2872(a) allows service secretaries to provide utilities to MHPI projects, if they are located on installation property. However, the developer must reimburse the installation for the utilities, with the reimbursement credited to the installation's O&M account that provides the utilities. See Appendix B for exact authority language.

MHPI deals at Fort Hood, MCB Pendleton and NC New Orleans are structured under Section 2872(a) authority. So while the installation provides utility services to the project's tenants, the budget scoring impact is eliminated because the developer reimburses the installation for the cost of those utilities. Also, resulting from

this legislation and rising BAH rates, Fort Carson's developer recently agreed to begin reimbursing the installation for utility services provided to the project's tenants.

c. Current MHPI Utility Structures

A basic pillar of the MHPI program, and in conjunction with the BAH rate increase initiative, is that MHPI project tenants should pay no out of pocket amounts toward either rent or utilities. MHPI projects accomplish this goal in slightly differing ways. Some deals require tenants to pay utilities directly to the utility provider. Other deals make the developer responsible for utility provider payments. In either case, rents are set below BAH levels, allowing for a portion of the BAH to cover average utility usage. The utility allowance is set at 110% of the area average monthly utility expense over the previous year. The additional 10% allows room for error and inflationary pressures, ensuring the allowance is adequate to cover normal utility usage for an average military family. Large military families and those with excessive utility usage may be required to pay some out of pocket utility expenses.

Multiple economic analyses and survey studies indicate that when tenants have no financial stake in utility expenses they have no incentive to conserve and act accordingly. However, those same tenants immediately gain concern and take appropriate action when they do have a financial stake in utility costs, either through direct payments or allowance methods. Therefore, while DoD still bears most of the financial burden and risk of supplying utilities to families living in either MILCON or MHPI units, more responsibility for payment and conservation is slowly descending upon the service members living in these units. This positive trend not only mimics the responsibility shouldered by those living in private sector housing, but also contributes to DoD efforts to control and reduce its utility costs.

H. TARGET TENANTS AND RETENTION

Since World War II, enlisted personnel and their importance to the vitality and effectiveness of the United States Armed Forces has gained increasing attention among Congress and DoD leaders. Changing service member demographics have also brought more attention to the well being of junior and mid-grade enlisted personnel. The average service member is older than before, more likely to be married, more likely to have children, more likely to be female, and more likely to be a single parent. All of these

factors increase the demand for adequate, affordable housing among the enlisted population.

Installations maintain housing units for all ranks, but since 1949 DoD has continually increased its focus on the housing concerns of junior and mid -grade enlisted personnel. Congress first authorized housing allowances for most enlisted personnel in 1949, expanding the benefit to include dependants in 1973. Through the 1980s and 1990s, attention to the housing plight of married junior enlisted personnel, frequently with children, gained them access to MFH as well as larger cash allowances for off -base living. Today, pay grades E4 and E5 account for 45% of all service members and E3 through E6 encompass three-fourths of all service members. However, their lower pay makes them less able to afford civilian housing, especially when they rent units large enough to accommodate their growing families.

1. Target Tenants

Increased attention among DoD leaders to the concerns of enlisted service members and their changing demographic factors result in most MHPI projects being focused on providing housing units to junior and mid -grade enlisted personnel. In his 1998 policy memo, John Goodman, DUSD for Industrial Affairs and Installations, established a MHPI priority for junior enlisted personnel, stating that,

...projects must specifically identify how the needs for junior enlisted personnel (E1 -E5) and their families are met at the particular installation. If the proposed project is not specifically targeted for junior enlisted personnel and their families, then the military department must identify and explain how it will use alternative means to address their needs.

As of 31 December 2001, only six of the fourteen projects included any officer housing provisions, with only two projects excluding provisions for E1 -E2 personnel. While BAH increases make off base housing more affordable for all ranks, MFH is increasingly targeted to satisfy the demands of the most junior personnel, especially those with a greater number of dependants.

Despite higher BAH rates, many junior enlisted personnel will continue struggling to meet their housing needs driving the demand for MFH and the need for these tenant policies. This condition is caused by junior enlisted personnel who have

more dependants than can be adequately housed within a dwelling of the size and type DoD policy sets out for them. For off base housing, BAH rates for E1 -E5 personnel are based on a 2-bedroom apartment, townhouse or duplex, with the E6 rate increasing to a 3-bedroom unit. Service members' family size is only considered when applying for on base housing. Consequently, the "housing gap" between what BAH provides and what MFH provides is still significant for many E1 -E5 personnel, driving the demand for MFH for these individuals. (GAO-01-508)

2. Retention

The link between service members' housing circumstance (BAH/MFH), satisfaction and retention is uncertain. The HRSO website promotes a positive linkage arguing that,

...today's military members want to live in communities that offer stability and continuity of living as a backdrop for deployment, reassignment and day-to-day military life. DoD has found that the proportion of personnel remaining in service from installations with high quality housing is about 15 percent higher than among those stationed at places with low quality housing.

Conversely, GAO argues that, "...the retention decision is complicated, highly personal, and usually a function of many factors." Many enlisted personnel who are unsatisfied with their housing circumstances still intend to remain in the military for at least twenty years. (GAO-01-684)

Although not conclusively proven, it seems logical to assume that better housing will improve service members' and their family's satisfaction with a military lifestyle, leading to better work performance and higher retention. The MHPI supports this hypothesis by increasing the quality, availability and affordability of housing for junior and mid-grade enlisted personnel with families. MHPI investments may serve an important role in bolstering retention desires among these junior personnel who are the very people that will become the mid-grade and senior leaders on tomorrow's military force.

I. INSTALLATION POPULATIONS AND SECURITY IMPLICATIONS

Most MHPI projects are located on government land, with many located on and integral to the actual installation. This proximity to critical military functions raises two

questions involving both financial and security concerns. What if the units are no longer needed by military families, and what if the demand among military families is insufficient to maintain required occupancy levels? The BAH rate increase initiative could negatively impact MHPI occupancy levels if significant numbers of military families choose to rent or own housing in the local community rather than live in MHPI units. Conversely, terrorist activities directed against United States military personnel and other government employees may increase the demand for on base housing, with service members and their families preferring the increased security of installation housing behind guarded gates.

1. Downsizing, Deployment and BRAC

The number of service members, and families eligible for and requiring military housing, stationed at a particular installation is paramount to the success of MHPI projects. The effects of a base closure or substantial downsizing are obvious, reducing the tenant base and the occupancy level of an MHPI project, placing it in jeopardy of financial failure. Even deployments of significant size or duration may financially stress a privatized project if large numbers of military families vacate the installation while service members are deployed, as happened at many CONUS posts during the Persian Gulf War.

To relieve MHPI developers of this potential and unpredictable risk, Fort Carson and three Air Force projects included limited loan guarantees, which improve the availability of private financing or assist the developers in obtaining lower interest rates from first mortgage lenders. The limited guarantee protects the first mortgage lender against mortgage default only, due to loss of tenants caused by base closure, downsizing, or extended deployment. The guarantees carry a low budget score, and only result in Government financial obligations when the developer demonstrates that loan default was directly caused by vacancy created by the number of eligible military families falling below a predetermined threshold. The threshold rate for each limited loan guarantee is individually negotiated depending upon each project's unique circumstances.

For the purpose of limited loan guarantees, the term 'eligible military families' is defined as the number of military personnel with families assigned to an installation who are eligible to live in MHPI units. The number of eligible military families is the actual

number of personnel (with families) assigned to the installation, reduced by the number of eligible military personnel deployed for a period of at least 150 days.

2. Force Protection and Installation Security

Privatization agreements allow for civilians to rent housing units if they are not rented by military families. Long-term agreements and the inherent errors associated with long-term estimates increase the potential that at least some civilians will eventually live in MHPI units. Several potential problems arise from the possibility of civilians living on military installations. Would maintaining installation security become more difficult and more expensive with a larger population entering and exiting the installation daily, and what control, if any, might the installation exercise over the renting policies of developers? Who would pay for and be responsible for civilian tenant security background checks? Could the civilian tenant move into an MHPI unit while pending a background check, and if not, who would absorb the rental losses during the waiting period? Would breaking the tradition of exclusive military community with civilian tenants negatively affect morale? The issue of impact aid payments for children of civilian MHPI tenants was discussed earlier. Finally, how would law enforcement responsibilities be delineated between local community and military police in cases involving on base civilian tenants?

3. Vacancy Solutions

First, the Air Force clearly does not want civilians living in installation MHPI units, and its 'severability' criterion is specifically designed to prevent this from occurring. The Army's whole-base MHPI concept may present challenges with unsustainably high MHPI vacancy rates requiring adjustments to the project's agreements. Although it is currently undesirable due to its high budget scoring effect, Section 2882, (a) and (b), Assignment of Members (tenant guarantee) could support required occupancy levels during downsizing, deployments, or low demand by military families. Renegotiating MHPI agreements to including this provision ensures high occupancy rates and avoids the potential concerns of civilians living on military installations, but runs counter to DoD's stated policy of relying first on the local real estate market for housing military families. Making vacant MHPI units available to DoD civilian workers may solve the problem but may also create fairness issues with the local

non-government civilian population, and does not solve the school impact aid problem. The policing and handling of crimes committed by civilian tenants on installations is no more complicated than the current situation where military and civilian law enforcement work together and frequently operate liaison departments affecting the scores of civilians working on and around military installations. Finally, decreased access to and increased security presence at installations, resulting from recent world wide terrorism events, may alleviate concerns about civilians living in MHPI units.

J. OTHER MHPI PROVISIONS AND ISSUES

1. Long-Term Contracts

Both critics and advocates frequently cite contract lengths in their arguments. With the exception of early projects at Kingsville -I and Everett-I, MHPI contract lengths are 30 to 50 years in length. Three projects also incorporate additional option years. Kingsville-II has a 15-year base contract, with a 15-year option, and Carson and Hood both have 50-year base contracts with 25-year options.

Critics, such as GAO and CNA, raise several risk factors associated with long-term contracts. When rents are fixed, as they are tied to BAH rates in MHPI projects, contractors may have little economic incentive to properly maintain the units. The contractor may increase profits through cost cutting measures by limiting maintenance, hiring less-qualified managers and staff, or using inferior construction and repair materials. Maintenance and repair short cuts may become especially tempting near the end of the contract life when developers may try to drain the maximum possible economic benefit from the property before it reverts to government ownership. While MHPI agreements contain maintenance standards, modernization schedules, escrow accounts and oversight safeguards, enforcing these provisions could become difficult, time consuming and costly, with minimal effectiveness. (GAO -98-178)

An additional concern of long-term privatization agreements is whether the housing will be needed over the life of the project. Since housing needs forecasts beyond three to five years are inaccurate, the risk substantially increases that DoD may not need the housing units over the entire period. This raises the prospect of DoD being financially responsible for housing it does not need, renting to civilians, or requiring

service members to live in the MHPI units rather than allowing their choice. (GAO -98-178)

DoD contends that long-term contracts are necessary to attract and maintain a contractor committed to the agreement's long-term health, and are in keeping with the concept of fostering acquisition partners, rather than the traditional government-contractor, us-and-them relationships. Shorter-term contracts promote a "take the money and run" attitude among contractors, and increase the administrative overhead and transitional lapses associated with frequent contractor turbulence. Raymond Dubois, DUSD (I&E) also added that longer-term ground leases and contracts enhance project financing options and quality by lengthening loan repayment periods, which allow project revenues to better meet debt service requirements. (Dubois, 2002)

DoD counters that installations only build to satisfy 90% of their MFH requirement to reduce the risk of maintaining excess units, and that multiple provisions are included in MHPI contracts to protect the quality of life of those service members residing in MHPI units. Cash flows cascade down the priority waterfall reaching the profit pool lastly, and the equity investments and partnership agreements give service officials adequate leverage to ensure investment and management decisions are in the best interests of the government, the installations and the service families. Ultimately, contract termination is available if contractor performance is deemed unacceptable. Yearly tenant surveys are largely responsible for grading the contractor's performance and the overall quality of living conditions.

2. Late Rent Payments

Four MHPI agreements (Carson, Lackland, Elmendorf and Hood) use Section 2882(c), Payment by Allotment authority, requiring military tenants to pay their rent to MHPI developers in the form of allotments from their periodic pay. Payment by allotment provides the developer with a stable revenue stream that is paid in arrears on the first of every month, unlike typical revenue streams based on rental payments found in the private sector. The ability of the developer to anticipate collection of rents without the variability associated with delinquent or insufficient payments provides added comfort to the developer and lender without additional costs to the Government, in terms of either dollars or budget impact. (PEP, 2001)

Nine of the first thirteen MHPI projects elected not to use this authority, which has resulted in significant non-payment of the final month's rent by tenants vacating the units. Because of the contract structures, this lost money is not a financial sacrifice for most of these developers, but rather represents funds that should be flowing into reinvestment accounts. Since the lost cash flow represents a decrement to future project renovations and enhancements, and has no budget scoring impact, the HRSO has strongly recommended that all future projects eliminate non-payment problems by incorporating payment by allotment authority into their contracts. (PEP, 2001)

3. Installation Provided Services

About one-half of the MHPI projects obtain police and fire protection services from the existing installation support organizations. These projects are located on land leased from DoD with housing communities that are either an integral part of or immediately adjacent to the installation. These support service provisions provide immediate cash flow to the developer by reducing operational costs (given that certain local taxes are not applicable) and reduce infrastructure costs. BAH cash flows service other projects needs, rather than paying for police and fire salaries and equipment, and the need to construct high-cost police and fire station houses is eliminated. Similar to utility services in the early projects, fire and police provisions are not budget scored, adding to an MHPI project's budget attractiveness. Mr. Sikes' LCC policy does not address the treatment of police and fire protection services. MHPI projects not receiving police and fire protection services from the installation, but relying on the local civilian community for these services, tend to be the smaller projects, located on private land and physically detached from the main installation.

4. Military Tenant Out-of-Pocket Expenses

All awarded projects have planned zero OOP expenses for their military tenants. Increasing BAH rates facilitated this for more recent projects. Earlier projects, like Kingsville-I and Everett-I required differential lease payments to supplement BAH rates to keep OOP expense at zero for all occupants. At these earlier projects, military occupancy was lower than anticipated, augmented by civilian tenants, and military tenant profiles were different than targeted due to significant OOP expenses experienced by their intended junior enlisted tenants. Although intended for junior and mid-grade (E4-

E6) enlisted families, Kingsville-I actually included 21% officers, 18% civilians, and 19% vacancies in January 1998, primarily because OOP expenses averaged almost \$200 per month. Military occupancy and tenant profiles became more favorable after instituting differential lease payments. San Diego also used DLP authority because BAH has not yet increased enough to cover all associated developer costs and utilities allowances. As discussed earlier, only those tenants with excessive utility usage should experience any OOP expenses while living in MHPI units.

5. Occupancy Rates

Thus far, MHPI overall occupancy rates and occupancy by military families has remained at nearly 100%. Only the Kingsville-I project experienced significant vacancy or civilian occupancy, primarily due to excessive OOP expenses borne by the targeted enlisted families. Differential lease payments and higher BAH rates gradually corrected this weakness. The Kingsville-I project demonstrates the flexibility MHPI provides with civilian tenants temporarily filling vacancies maintaining the project's financial viability.

6. Physical Assessment Report

The Services are developing standard tenant surveys, to be conducted yearly, which will in large part measure the effectiveness of the project's operations and management functions. To help ensure tenant satisfaction, many of the individual project contracts have either built in performance incentives for operations and management or have the ability to force the replacement of an unsatisfactory property management organization. Thus far, initial tenant feedback from physical assessment reports is positive, with three projects (Lackland, Dyess, Kingsville-II) earning an 'excellent' rating. Ten projects earned 'good' ratings, no projects earned a 'poor' rating, and only Hood earned a 'fair' rating. The 'fair' rating at Hood was primarily attributed to disappointed tenants who moved into units that were conveyed to the developer but had not yet been renovated.

K. SERVICE COMPONENT KEYSTONES

1. Air Force - Severability

The Air Force intends to primarily use MHPI to supplement their traditional MFH operations in areas with strong real estate markets where the MHPI developments are kept distinctly separate from the core installation. This balanced approach, combining

BAH, MILCON and MHPI, provides the most flexibility and hedges against future uncertainties. Severable MHPI projects facilitate civilian occupancy without interfering with base security concerns, and the robust real estate markets provide an adequate pool of potential civilian tenants. Reasonable prospects for civilian occupancy greatly reduces the Air Force's potential liabilities to the projects if installations are closed or downsized, or if increasing BAH rates, as predicted, dramatically decrease the demand for MFH among military families. The obvious disadvantage of the Air Force approach is the reliance on traditional MILCON appropriations to revitalize and maintain its MFH inventory. These MILCON funds may not materialize in adequate supply to accomplish the necessary revitalizations or may require extended timelines to do it.

2. Army - RFQ Source Selection and Whole Base Concept

The Army feels its RFQ process is consistent with ongoing acquisition streamlining and business partnering initiatives, resulting in solicitations that are both more efficient and more effective. It is more efficient because developers do not have to spend the time and money to draw up detailed architectural designs knowing they may not win the contract award. The Army also believes more firms can compete for the contract because an RFQ is easier and less costly to develop. It is more effective; more likely to meet Army needs since the Army is intimately involved in the detailed design planning, maximizing opportunities for interchange while fostering innovation and taking advantage of private sector design expertise.

Critics contend that the RFQ process limits competition to only those very large development firms who have previous experience with large housing communities, squeezing out smaller firms who may have better concepts and designs. They also believe source selection, based on an RFQ, is too subjective for a contract encompassing basic construction and property management, neither of which are new or unique. Still others argue that selecting a contractor based only on an RFQ severely limits the Army's ability to obtain a best value deal through competition because competition is eliminated before the detailed plans are completed.

The whole-base concept fosters service families' emotional loyalty and commitment to the installation and the Army by touching every aspect of their daily life and leaving a positive impression upon it. Former Secretary of the Army Louis Caldera

once stated, “We recruit soldiers, but we retain families.” (Apgar, 2000) This quote reflects the Army’s view that military career decisions are total family decisions and that families make these decisions based extensively on their perceived quality of life. The whole-base concept represents the Army’s belief that quality of life can be sustained and improved by privatizing entire bases and creating close-knit livable communities where military families have access to the various types of housing, amenities and support services that most civilians enjoy in their neighborhoods. The Army’s MHPI developers become community managers, responsible for researching and responding to families’ needs over the long-term, not just property managers responsible for assignments and maintenance of housing units. The whole-base concept also promotes operating efficiency by consolidating an entire installation’s housing functions under a single prime contractor.

3. Navy - PPV

When compared to the Air Force and Army approaches to MHPI, the Navy’s approach, using public-private ventures, requires more financial investment and commitment at project inception with higher budget scores, but provides greater Navy involvement and control over the project and offers the potential of some equity returns in the out years. Investment authority through PPVs provides the Navy with the flexibility and maximum management control over the project, including input into key decisions such as the sale of assets from the project, the incurring of new debt, the use of maintenance or reinvestment funds, while preserving limited liability and avoiding responsibility for day-to-day operations. The Navy says that PPV enable it to participate in the projects upsides, and accordingly, reinvest those returns, as needed, to insure that the units are well operated and maintained for the benefit of the Navy families throughout the term of the agreement.

L. CHAPTER SUMMARY

While it falls short of absolute privatization under a completely free market system, MHPI moves DoD closer to the intent outlined in OMB Circular A-76 and meets Federal Acquisition Regulation Part 2 guidance in not qualifying as an inherent governmental function. The MHPI program is a positive step to reduce the cost of defense infrastructure and improve the quality of life for its service members. The BAH

rate increase initiative is both a boon to MHPI financial feasibility but may also cause a reduced need for military family housing. Although MHPI benefits from previous housing privatization lessons learned it is still partially held hostage by budget scoring and internal government critics. It is a complicated, dynamic program with a short history and a long list of questions and issues that will ultimately determine its historical rank ordering along side the Wherry, Capehart, and Sections 801 and 802 programs.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

During Congressional testimony on 13 March 2002, Raymond F. DuBois, DUSD for Installations and Environment, explained the urgent need to improve military family housing conditions saying,

We're competing with the private sector for the best young people in our country. We can't simply count on their patriotism and their willingness to sacrifice alone. Sustaining the quality of life of our people is crucial to recruiting, crucial to retention, and especially crucial to our readiness to fight.

Clearly, quality of life and its connection to recruitment, retention and force readiness, and the effect housing conditions have on quality of life, are major concerns within DoD. While most agree that adequate, affordable housing contributes to the betterment of service members, their families, and ultimately to DoD, many disagree on the best method to obtain and provide this housing to service members.

B. MILCON

1. Conclusions

Although MILCON has been the primary method of obtaining on-base MFH for over fifty years, its funding levels have consistently fallen short of DoD's construction, renovation and operations needs, perpetuating the inadequate housing problem. Given current Federal budget pressures and those projected in the future, it is unlikely that MILCON will ever solve the MFH problem. However, Congress still views MILCON as the primary method for constructing, renovating and operating on-base housing, but is unlikely to fully relinquish the budgetary control associated with it.

2. Recommendations

Recognizing that Congress prefers MILCON to MHPI, DoD should continue using MILCON to the maximum practicable extent, while gradually decreasing its reliance on it. MILCON is best suited for planned renovations of existing on-base units or construction of new on-base units only when a weak or non-existent local housing market renders MHPI or private-sector housing unviable. DoD could reduce MILCON costs by building to commercial standards and using a private contractor to operate and

maintain its MILCON inventory using performance incentives based on military family satisfaction surveys.

C. BAH

1. Conclusions

Housing Allowances, specifically BAH rates, are the clearly the central variable in the demand/supply equation for housing service members and their families. Lower allowances, requiring significant out-of-pocket expenditures for those living off base, and free utilities on base caused the historically strong demand for on-base housing. By 2005, the BAH rate increase initiative will eliminate this variable and the associated cost disparity between private sector housing and MFH. While each installation's local economy and private sector housing market is unique, higher BAH rates will decrease the demand and need for MFH by making rental and ownership in the local market more feasible for service families, and by attracting private housing investment from non-military individuals. However, increased availability and usage of private sector housing resulting from higher BAH rates may not materialize for several more years because of the culture of 'government housing' and historical presence of large MFH stocks.

BAH is also the single most important factor in MHPI deals for two reasons. First, it is not budget scored, thereby increasing the attractiveness of the Government's funding profile for MHPI projects and making them more palatable for Congressional approval. Second, it provides most of the cash flow into an MHPI project. Increasing these cash inflows attracts more developers to MHPI projects, increasing competition and quality, and reducing costs. Increasing BAH rates also reduces the need for other forms of Governmental financial participation such as equity investments and direct loans that increase government risk and exposure to losses.

2. Recommendations

DoD should ensure the success of the BAH rate increase initiative to obtain and maintain BAH rates at 100% of total housing costs. Over time, BAH rate increases can be partially offset by cost savings resulting from a reduced reliance on and a partial divestiture of the more costly MHPI and MILCON programs.

Service components and individual installations must ensure that MHPI deals have adequate measures to ensure appropriate capture, use and control over excess cash inflows resulting from increasing BAH rates.

D. MHPI

1. Conclusions

MHPI provides a flexible, achievable and appropriate bridge between private sector housing and traditional MILCON housing. Although few MHPI projects are completed, little historical data is available for collection and analysis, and many control and evaluation processes are still under development and refinement, it seems that MHPI is meeting its objective of solving the military housing problem. MHPI's most attractive feature is its ability to construct and renovate housing units significantly faster than traditional MILCON funded methods could. Projections indicate that MHPI costs about 10% less than traditional MFH funded by MILCON appropriations but is still more costly than private sector housing funded by housing allowances, and accurate long-term LCC estimates are fraught with interpretations and assumptions. MHPI projects also provide housing comparable to the local private housing market rather than the one-size-fits-all units typical of traditional MFH. Through HRSO oversight and inter-service cooperation, many lessons learned from earlier MHPI projects and lessons from the Wherry, Capehart and Section 801/802 programs have also been incorporated into the MHPI deals structures.

2. Recommendations

DoD should not base any project decisions on the anticipation that MHPI will be less costly than traditional MFH since cost growth is far more prevalent in Government operations than savings realizations.

DoD should use MHPI to bridge the gap between traditional MFH funded by MILCON and private sector housing funded by BAH. It is best suited for constructing and renovating units when sufficient MILCON funding is not available and should be targeted for installations in robust real estate markets that can absorb the MHPI units if the installation downsizes or closes.

E. BUDGET SCORING

1. Conclusions

Budget scoring has a significant impact on decisions surrounding the housing issue, especially those decisions concerning the use or non-use of the MHPI authorities and to what degree those authorities are used.

As more MHPI units become available and occupied by service families, budgetary requirements and cash flows will shift from the MILCON-O&M accounts to the Military Personnel (BAH) accounts which may cause increased Congressional interest in BAH, likely resulting in increased Congressional control and oversight since BAH is essentially an entitlement to all service members with dependants.

2. Recommendations

DoD and the services must continue to carefully evaluate and improve the MHPI project decision criterion to ensure that individual MHPI deals are not only affordable under budget scoring rules but are also financially sensible in the long term.

F. UTILITY SERVICES

1. Conclusions

Utilities are a significant cost component to providing MFH either through MILCON or MHPI, and have historically represented the out-of-pocket cost difference between private sector housing and MFH. Tenants tend to have little regard for conservation and consume more utilities when they are provided free of charge. Conversely, consumption decreases and conservation concerns increase when tenants pay their own utility costs. While the utility allowance method helps prevent excessive use, it does not promote true conservation because tenants do not financially benefit from extraordinary conservation efforts.

2. Recommendations

Tenants of both MHPI and traditional MFH should be directly financially responsible for their utility costs. While the allowance system is acceptable where individual unit metering is not available, direct payment to the utility provider is the preferred method where metering is available and should be incorporated into all new and renovated units.

G. RETENTION

1. Conclusions

Initial survey results indicate tenants are happy with MHPI, seeing it as a vast improvement over the MILCON alternatives. Service members are also pleased with the BAH rate increases which broaden their housing choices. While difficult to measure or quantify, choice increases career satisfaction and retention. Whether it is a choice of duty station, military occupational specialty (MOS), reenlistment bonuses or housing, service members respond positively to choices.

Service members' retention decisions are increasingly based on overall career satisfaction, including family members' satisfaction with the prospects of a military spouse or parent. Since housing conditions are closely tied to service member and family members' satisfaction with a military lifestyle, improving housing through BAH and MHPI will inevitably lead to higher retention.

2. Recommendations

DoD should use the housing improvements as quality of life advertising material for its recruitment and retention programs, reducing recruitment and retention costs and improving effectiveness resulting from increased force continuity.

H. FAMILY AND INSTALLATION SECURITY

1. Conclusions

The new terrorism environment will increasingly impact housing decisions, from both a family security perspective and an installation security perspective. More service members may pursue on base housing to promote family security and installations will be less amicable to civilian occupants in MHPI units.

2. Recommendations

Due to costs and time constraints, DoD should structure MHPI deals to avoid occupancy by any individuals who do not already possess an adequate background security clearance. No tenant should be allowed to rent or occupy on-base MHPI units until appropriate security checks are completed. Having at least a portion of the installation's family housing stock as severable ensures that potential civilian occupants could be directed to the severable units with military families living in the non-severable units of an MHPI project.

I. SERVICE COMPONENT APPROACHES TO MHPI

1. Conclusions

Consistent with military tradition and happenstance, each of the three Service components has once again embarked upon their own unique approaches to solving similar problems. The Air Force's balanced approach between MILCON and MHPI and their severability criterion, the Army's whole-base concept and RFQ solicitation process, and the Navy's PPV approach demonstrate the flexibility build into the MHPI authorities and the program's current structure. This flexibility allows each service and installation to pursue MHPI agreements that fit their unique cultures and circumstances and avoids the pitfalls of a one-size-fits-all approach.

2. Recommendations

Maintain the current MHPI program structure allowing the services and installations to pursue housing solutions based on their own unique cultures and circumstances, while using the HRSO to promote information sharing, and to provide guidance, oversight and a conduit to and from OSD and Congress.

DoD must guard against overbuilding and civilian occupancy by fully considering the long-term impact of rising BAH rates. Even though DoD's stated policy is to build only 90% of its MFH requirement, every installation, as part of its construction and/or renovation request, should commission an economic study to estimate the increased private sector housing availability that may likely materialize over the next ten years resulting from the BAH rate increases.

The Air Force's Severability criterion should be a component of most MHPI projects. Based on the study of the local real estate market, installations should ensure that at least an appropriate portion of the total MHPI project is severable to prevent the need for civilians (requiring background checks and potentially creating security trepidation) from potentially renting MHPI units if service member demand is inadequate and if budget scoring prevents the use of "assignment of members" authority. Even the Army's whole-base concept could accommodate this approach by building a portion of its MHPI units on the periphery of the post.

While the Navy's PPV approach promotes increased service oversight, DoD should also guard against excessive involvement in privatization efforts that may compromise the beneficial affects of privatization.

J. HOUSING REFERRAL OFFICE

1. Conclusions

Installation housing referral offices have primarily focused on managing the waiting and assignment of willing service families to traditional MFH, while information and services concerning the local private sector housing market has been mostly cursory. Improving service families' ability to make appropriate housing decisions will reduce the need and demand for government sponsored housing through either the MILCON or MHPI programs, and allow for greater reliance on private sector housing markets without.

2. Recommendations

DoD, the service components, and installations should change the face of installation housing offices. They should move away from assignment, maintenance and inspections and gravitate toward referrals, counseling, and consumer information based operations. Robust manning of housing offices and associated referral services, including financial counseling, rental and purchase pricing, crime statistics, property tax and insurance data, and historical customer satisfaction surveys promote knowledgeable decisions by service families. Ultimately, the goal is to help an inexperienced military family make an informed, intelligent housing decision.

K. RESEARCH QUESTION ANSWERS

1. Primary Research Question

How might the Department of Defense best use its various housing programs to solve its military family housing problem to ensure its service families are adequately housed?

DoD is using all three methods (BAH, MILCON, MHPI) at its disposal to eliminate the problem of inadequate military family housing, but each service component and installation has the flexibility to choose the method, or mixture of methods that best suit its circumstances. Since each service component and installation have unique service member cultures and localized housing markets, the mixture and flexibility allowed by

the Department, coupled with HRSO coordination and oversight provides the optimum housing solution. Maximum long-term efficiencies and minimum government financial risk could be obtained by gradually reducing the MILCON and MHPI housing stocks and replacing these reductions with a greater reliance on the private-sector housing market (BAH) by service member families.

2. Secondary Research Questions

- What methods for providing military family housing are available to the Defense Department? Traditional military construction (MILCON), Military Housing privatization Initiative (MHPI) and reliance on the private sector housing market (BAH).
- What housing methods do service members prefer and what factors influence their choice? Approximately 75% of all service members prefer civilian housing obtained in the private sector market and funded by BAH, primarily because the traditional MILCON housing is smaller, older, has fewer amenities and is generally run-down compared to the civilian housing they can obtain with BAH. Junior-ranking personnel, those with non-working spouses, and those with larger families seek traditional MILCON housing primarily because it is larger and less expensive than the housing they could otherwise afford and obtain in the local private sector housing market.
- What is the Military Housing Privatization Initiative (MHPI), and what are the program's goals? The primary goal of the MHPI is to fill the gap left between MILCON family housing and the private sector housing market (BAH) by quickly constructing and renovating family housing units at a pace three to five times faster than could be accomplished through traditional MILCON appropriations alone.
- What impact does "budget scoring" have on MHPI decisions and deals? Budget scoring has an enormous impact on virtually all aspects in the process of deciding upon and then crafting an MHPI agreement. MHPI authorities with little or no budget scoring impact are heavily favored over those authorities with higher scores. BAH is not budget scored, but scoring it would cause the demise of any further MHPI projects.
- What impact does BAH have on the need for MFH and the prospects for MHPI? Near most installations, the BAH rate increase initiative should eventually make more private sector housing available to and affordable for military families which will decrease the demand and need for MFH. Rising BAH rates make MHPI more lucrative for developers and decrease the governments need to use other authorities such as direct loans or equity investments to fill the development gap in MHPI deals. The BAH rate increases necessary to spur private sector housing market expansion near installations in desolate locations or tightly constricted real estate

markets will likely be prohibitively expensive, continuing the need for either MILCON or MHPI family housing projects.

- What impact will MHPI likely have on the closed military community concept, retention rates, and family security? Although difficult to measure and quantify, better housing conditions, regardless of how they are obtained, will at least marginally improve retention rates and service family satisfaction. If service family occupancy decreases in off base MHPI projects, civilian tenants will be readily welcomed and integrated to fill the vacancies. However, because of security concerns and to preserve the concept and culture of the military installation, service leaders and installation commanders are unlikely to allow meaningful civilian occupancy of on base MHPI projects. They will find creative methods to persuade service members to accept the on base units, exercise severability clauses, push for Wherry-type acquisitions, or request assignment of members authority.
- What impact will MHPI have on DoD utility expenses? While much remains to be done, MHPI is gradually placing greater financial and conservation responsibility for utility payments on service members, which reduces DoD utility expenses by placing the burden of excessive use on the shoulders of the tenants.

L. AREAS FOR FURTHER STUDY

- Determine the requirements for MFH. How much MFH do we really need? What installations have adequate real estate markets to absorb more military families and where is MFH still needed?
- What is the net impact of higher BAH rates. Has it increased the supply and adequacy of private sector housing and reduced the need for MFH?
- Follow-up to gauge the success failure of MHPI or individual MHPI projects judging customer satisfaction, costs and control issues.
- Will the Navy's PPV actually see any long term costs savings, increased control or other benefits resulting from its higher initial investments?
- How has terrorism affected service members' preferences for on-installation MFH and installation leaders' preference for MHPI?
- What will DoD (primarily the Army) do with section 801 housing when the leases expire, mostly in 2007 and 2008? How do the historical costs of these projects compare to their initial estimates or to comparable MILCON projects?
- What impact does utility privatization have on MHPI and traditional MILCON MFH?

M FINAL THOUGHT

Whether providing a product or service by a government agency, through a government agency or for a government agency, the historical costs are consistently higher than estimated at project inception. Government is consistently criticized for being inefficient and more costly than private industry. With this in mind, DoD should quantify its primary concern regarding MFH. If the concern is to provide government-sponsored housing, and to upgrade its government sponsored housing quickly, then MHPI is the best way to do it. Although it may be estimated to cost less at project inception, the costs will likely grown as costs have almost always done under other government contracts and projects. However, MHPI holds the promise of rapidly upgrading all inadequate MFH and eliminating housing deficits within the next six years.

If DoD's primary concern is cost control, while still maintaining the traditional MFH inventory, it should consider building and renovating MFH under MILCON and using a contractor for maintenance and management services.

If DoD's concern is to ensure its service families live in housing considered adequate for their rank and family size, at most installations its least costly method is the private sector housing market, funded through BAH. This allows SMs to make their own housing decisions, providing choice, rather than being assigned to a MFH unit or community. Purchases, rentals, maintenance and management is subject to market forces and market efficiencies. Working with area chambers of commerce and business associations will encourage investment, and allow DoD to gradually divest installations of MILCON units over the next twenty years or so, giving the market adequate time to adjust.

APPENDIX A. DEFINITIONS AND ABBREVIATIONS

ACRS	Accelerated Cost Recovery System. An IRS provision that allows private firms to accelerated depreciation deductions on tangible assets for tax purposes. ACRS rates are based on the useful life of the asset class and produce higher depreciation expenses in earlier years when compared to other depreciation methodologies. Under ACRS, full asset depreciation is accomplished in 50-75% of the time and is significantly skewed toward the early years of asset life, when compared to the straight-line method. ACRS was introduced in 1980, and modified in 1987, as an inducement to promote business capital investment.
Appropriations	As a type of budget authority, permit you to incur obligations and make outlays (payments) for a given purpose. Not all appropriations provide budget authority. Congress enacts appropriations in annual appropriations acts and other laws. (OMB Circular A-11)
Base Loading	Refers to the number of military service members assigned to units stationed at a particular installation. It may refer to the absolute number of service members assigned to an installation, or be expressed as a percentage of the total population (including all military and civilians) living within the installation's geographical area.
Basic Allowance for Housing	BAH. Replaces the old BAQ/VHA system.
Capital Lease	Any lease other than a lease-purchase that does not meet the criteria of an operating lease. (OMB, A-11)
Davis-Bacon Act (40 U.S.C. 276a-276a-7)	The Act provides that contracts in excess of \$2,000 to which the United States or the District of Columbia is a party for construction, alteration, or repair (including painting and decorating) of public buildings or public works within the United States, shall contain a clause that no laborer or mechanic employed directly upon the site of the work shall receive less than the prevailing wage rates as determined by the Secretary of Labor. (FAR, Part 22)

Force Alignment	Refers to the number and type of military units assigned to an installation.
KTR	Contractor, hired to provide a good or service to the government.
Lease-Purchase	A type of lease in which ownership of the asset is transferred to the Government at or shortly after the end of the lease term. Such a lease may or may not contain a bargain-price purchase option. (OMB, A-11)
Life Cycle Cost	LCC. The total cost to the government of acquisition and ownership of that system over its useful life. It includes the cost of development, acquisition, operations, and support (to include manpower), and where applicable, disposal.
Maintenance Rent	The proportion or dollar value of periodic rent payment that covers the operations and maintenance costs of a housing project after construction is completed.
MFH	Military Family Housing. Housing units provided specifically for military family occupancy, including units obtained under section 801/802, and units owned and operated by DoD and funded through MILCON appropriations.
MHO	Military Housing Office. Located at a military installation, a housing referral office that both assigns people to MFH units and offers limited advice to service members regarding the local private housing market.
MILCON	Military Construction. Appropriations funding for major projects such as bases, schools, missile storage facilities, maintenance facilities, medical/dental clinics, libraries, and military family housing. MILCON appropriations fund most major renovations and new construction of MFH, through specific MFH appropriations, separate from other MILCON appropriations.
NPV	Net Present Value.

Shelter Rent	The proportion or dollar value of periodic rent payments adequate to amortize the construction costs of a housing project over its useful life, or the duration of the mortgage.
Operating Lease	Any lease that meets ALL four of the following criteria. (OMB, A-11) <ul style="list-style-type: none"> (1) Ownership of the asset remains with the lessor during the term of the lease and is not transferred to the Government at or shortly after the end of the lease term. (2) The lease does not contain a bargain-price purchase option. (3) The lease term does not exceed 75% of the estimated economic life of the asset. (4) The present value of the minimum lease payments over the life of the lease does not exceed 90% of the fair market value of the asset at the beginning of the lease term.
Operations and Maintenance	O&M. Money from this appropriation funds the day-to-day operations of MFH including all minor repairs, most major repairs and occasionally a small portion of major renovations.
Out of Pocket Expenses	OOP. The portion of a service member's housing expense that is not covered by BAH, are borne by the service member, and usually considered paid from after-tax base pay.
Privatized Housing	Housing units made available for rent to military families under the Military Housing Privatization Initiative.
PSH. Private Sector Housing	Also called Civilian Housing. Housing units, located on private land, owned and operated by private entities, available to the general population, either military or civilian, for rental or ownership.
Utilities	Periodic and recurring expenses associated with operating a household including electricity, heat, water, sewer, and refuse removal. Does not include telephone, cable TV or Internet service provider costs, which are considered personal and discretionary to the occupant.

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APPENDIX B. 1996 DEFENSE AUTHORIZATION ACT

1996 Defense Authorization Act

Public Law 104-106 110 Stat 186

Signed by President Clinton on Saturday, February 10, 1996.

**One Hundred Fourth Congress
of the
United States of America
At the Second Session**

Begun and held at the City of Washington
on Wednesday, the third day of January, one thousand nine hundred and ninety-six
S1124
Thurmond S. (R-SC), 01/26/96, (32488 lines)
Enrolled (finally passed both houses)

AN ACT

To authorize appropriations for fiscal year 1996 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe personnel strengths for such fiscal year for the Armed Forces, to reform acquisition laws and information technology management of the Federal Government, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE XXVIII--GENERAL PROVISIONS

SUBTITLE A--MILITARY HOUSING PRIVATIZATION INITIATIVE

SEC. 2801. ALTERNATIVE AUTHORITY FOR CONSTRUCTION AND IMPROVEMENT OF MILITARY HOUSING.

(a) ALTERNATIVE AUTHORITY TO CONSTRUCT AND IMPROVE MILITARY HOUSING.--(1) Chapter 169 of title 10, United States Code, is amended by adding at the end the following new subchapter:

SUBCHAPTER IV--ALTERNATIVE AUTHORITY FOR ACQUISITION AND IMPROVEMENT OF MILITARY HOUSING

Sections:

2871. Definitions.

2872. General authority.

2872a. Utilities and Services. (added by Public Law 106-398, 2001)
2873. Direct loans and loan guarantees.
2874. Leasing of housing to be constructed.
2875. Investments in nongovernmental entities.
2876. Rental guarantees.
2877. Differential lease payments.
2878. Conveyance or lease of existing property and facilities.
2879. Interim leases.
2880. Unit size and type.
2881. Ancillary supporting facilities. (modified by Public Law 106-65)
2882. Assignment of members of the armed forces to housing units.
2883. Department of Defense Housing Funds.
2884. Reports.
2885. Expiration of authority.

S 2871. **Definitions.** In this subchapter:

(a) The term 'ancillary supporting facilities' means facilities related to military housing units, including child care centers, day care centers, tot lots, community centers, housing offices, dining facilities, unit offices, and other similar facilities for the support of military housing.

(b) The term 'base closure law' means the following: "(A) Section 2687 of this title. "(B) Title II of the Defense Authorization Amendments and Base Closure and Realignment Act (Public Law 100-526; 10 U.S.C. 2687 note). "(C) The Defense Base Closure and Realignment Act of 1990 (part A of title XXIX of Public Law 101-510; 10 U.S.C. 2687 note).

(c) The term 'construction' means the construction of military housing units and ancillary supporting facilities or the improvement or rehabilitation of existing units or ancillary supporting facilities.

(d) The term 'contract' includes any contract, lease, or other agreement entered into under the authority of this subchapter.

(e) The term 'Fund' means the Department of Defense Family Housing Improvement Fund or the Department of Defense Military Unaccompanied Housing Improvement Fund established under section 2883(a) of this title.

(f) The term 'military unaccompanied housing' means military housing intended to be occupied by members of the armed forces serving a tour of duty unaccompanied by dependents.

(g) The term 'United States' includes the Commonwealth of Puerto Rico.

S 2872. **GENERAL AUTHORITY**

In addition to any other authority provided under this chapter for the acquisition or construction of military family housing or military unaccompanied housing, the Secretary concerned may exercise any authority or any combination of authorities provided under this subchapter in order to provide for the acquisition or construction by private persons of the following:

(1) Family housing units on or near military installations within the United States and its territories and possessions.

(2) Military unaccompanied housing units on or near such military installations.

S 2872a. **UTILITIES and SERVICES** (This section was added by the Defense Authorization Act for Fiscal Year 2001, P.L. 106-398)

(a) **Authority to Furnish.** The Secretary concerned may furnish utilities and services referred to in subsection (b) in connection with any military housing acquired or constructed pursuant to the exercise of any authority or combination of authorities under this subchapter if the military housing is located on a military installation.

(b) **Covered Utilities and Services.** The utilities and services that may be furnished under subsection (a) are the following:

- (1) Electric power.
- (2) Steam.
- (3) Compressed air.
- (4) Water.
- (5) Sewage and garbage disposal.
- (6) Natural gas.
- (7) Pest control.
- (8) Snow and ice removal.
- (9) Mechanical refrigeration.
- (10) Telecommunication services.

(c) **Reimbursement.** The Secretary concerned shall be reimbursed for any utilities or services furnished under the subsection (a).

(2) The amount of any cash payment received under paragraph (1) shall be credited to the appropriation or working capital account from which the cost of furnishing the utilities or services concerned was paid. Amounts so credited to an appropriation or account shall be merged with funds in such appropriation or account, and shall be available to the same extent, and subject to the same terms and conditions, as such funds.

S 2873. **DIRECT LOANS AND LOAN GUARANTEES**

(a) *Direct Loans.*—

(1) Subject to subsection (c), the Secretary concerned may make direct loans to persons in the private sector in order to provide funds to such persons for the acquisition or construction of housing units that the Secretary determines are suitable for use as military family housing or as military unaccompanied housing.

(2) The Secretary concerned shall establish such terms and conditions with respect to loans made under this subsection as the Secretary considers appropriate to protect the interests of the United States, including the period and frequency for repayment of such loans and the obligations of the obligors on such loans upon default.

(b) *Loan Guarantees.*—

(1) Subject to subsection (c), the Secretary concerned may guarantee a loan made to any person in the private sector if the proceeds of the loan are to be used by the person to acquire, or construct housing units that the Secretary determines are suitable for use as military family housing or as military unaccompanied housing.

(2) The amount of a guarantee on a loan that may be provided under paragraph (1) may not exceed the amount equal to the lesser of -

- (A) the amount equal to 80 percent of the value of the project; or
- (B) the amount of the outstanding principal of the loan.

(3) The Secretary concerned shall establish such terms and conditions with respect to guarantees of loans under this subsection as the Secretary considers appropriate to protect the interests of the United States, including the rights and obligations of obligors of such loans and the rights and obligations of the United States with respect to such guarantees.

(c) *Limitation on Direct Loan and Guarantee Authority.*--Direct loans and loan guarantees may be made under this section only to the extent that appropriations of budget authority to cover their cost (as defined in section 502(5) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5))) are made in advance, or authority is otherwise provided in appropriation Acts. If such appropriation or other authority is provided, there may be established a financing account (as defined in section 502(7) of such Act (2 U.S.C. 661a(7))), which shall be available for the disbursement of direct loans or payment of claims for payment on loan guarantees under this section and for all other cash flows to and from the Government as a result of direct loans and guarantees made under this section.

S 2874. LEASING OF HOUSING TO BE CONSTRUCTED

(a) ***Build And Lease Authorized.***--The Secretary concerned may enter into contracts for the lease of military family housing units or military unaccompanied housing units to be constructed under this subchapter.

(b) ***Lease Terms.***--A contract under this section may be for any period that the Secretary concerned determines appropriate and may provide for the owner of the leased property to operate and maintain the property.

S 2875. INVESTMENTS IN NONGOVERNMENTAL ENTITIES

(a) ***Investments Authorized.***--The Secretary concerned may make investments in nongovernmental entities carrying out projects for the acquisition or construction of housing units suitable for use as military family housing or as military unaccompanied housing.

(b) ***Forms of Investment.***--An investment under this section may take the form of an acquisition of a limited partnership interest by the United States, a purchase of stock or other equity instruments by the United States, a purchase of bonds or other debt instruments by the United States, or any combination of such forms of investment.

(c) ***Limitation on Value of Investment.***—

(1) The cash amount of an investment under this section in a nongovernmental entity may not exceed an amount equal to $33\frac{1}{3}$ percent of the capital cost (as determined by the Secretary concerned) of the project or projects that the entity proposes to carry out under this section with the investment.

(2) If the Secretary concerned conveys land or facilities to a nongovernmental entity as all or part of an investment in the entity under this section, the total value of the investment by the Secretary under this section may not exceed an amount equal to 45 percent of the capital cost (as determined by the Secretary) of the project or projects that the entity proposes to carry out under this section with the investment.

(3) In this subsection, the term 'capital cost', with respect to a project for the acquisition or construction of housing, means the total amount of the costs included in the basis of the housing for Federal income tax purposes.

(d) ***Collateral Incentive Agreements.***--The Secretary concerned shall enter into collateral incentive agreements with nongovernmental entities in which the Secretary makes an investment under this section to ensure that a suitable preference will be afforded members of the armed forces and their dependents in the lease or purchase, as the case may be, of a reasonable number of the housing units covered by the investment.

S 2876. RENTAL GUARANTEES

The Secretary concerned may enter into agreements with private persons that acquire or construct military family housing units or military unaccompanied housing units under this subchapter in order to assure the occupancy of such units at levels specified in the agreements; or rental income derived from rental of such units at levels specified in the agreements.

S 2877. DIFFERENTIAL LEASE PAYMENTS

Pursuant to an agreement entered into by the Secretary concerned and a private lessor of military family housing or military unaccompanied housing to members of the armed forces, the Secretary may pay the lessor an amount in addition to the rental payments for the housing made by the members as the Secretary determines appropriate to encourage the lessor to make the housing available to members of the armed forces as military family housing or as military unaccompanied housing.

S 2878. CONVEYANCE OR LEASE OF EXISTING PROPERTY AND FACILITIES

(a) *Conveyance or Lease Authorized.*--The Secretary concerned may convey or lease property or facilities (including ancillary supporting facilities) to private persons for purposes of using the proceeds of such conveyance or lease to carry out activities under this subchapter.

(b) *Inapplicability To Property At Installation Approved For Closure.*--The authority of this section does not apply to property or facilities located on or near a military installation approved for closure under a base closure law.

(c) *Terms and Conditions.*—

(1) The conveyance or lease of property or facilities under this section shall be for such consideration and upon such terms and conditions as the Secretary concerned considers appropriate for the purposes of this subchapter and to protect the interests of the United States.

(2) As part or all of the consideration for a conveyance or lease under this section, the purchaser or lessor (as the case may be) shall enter into an agreement with the Secretary to ensure that a suitable preference will be afforded members of the armed forces and their dependents in the lease or sublease of a reasonable number of the housing units covered by the conveyance or lease, as the case may be, or in the lease of other suitable housing units made available by the purchaser or lessee.

(d) *Inapplicability of Certain Property Management Laws.*--The conveyance or lease of property or facilities under this section shall not be subject to the following provisions of law:

- (1) Section 2667 of this title.
- (2) The Federal Property and Administrative Services Act of 1949 (40 U.S.C. 471 et seq.).
- (3) Section 321 of the Act of June 30, 1932 (commonly known as the Economy Act) (40 U.S.C. 303b).
- (4) Section 501 of the Stewart B. McKinney Homeless Assistance Act (42 U.S.C. 11401).

S 2879. **INTERIM LEASES**

Pending completion of a project to acquire or construct military family housing units or military unaccompanied housing units under this subchapter, the Secretary concerned may provide for the interim lease of such units of the project as are complete. The term of a lease under this section may not extend beyond the date of the completion of the project concerned.

S 2880. **UNIT SIZE AND TYPE**

(a) ***Conformity with Similar Housing Units In Locale.***—The Secretary concerned shall ensure that the room patterns and floor areas of military family housing units and military unaccompanied housing units acquired or constructed under this subchapter are generally comparable to the room patterns and floor areas of similar housing units in the locality concerned.

(b) ***Inapplicability of Limitations on Space by Pay Grade.***—

(1) Section 2826 of this title shall not apply to military family housing units acquired or constructed under this subchapter.

(2) The regulations prescribed under section 2856 of this title shall not apply to any military unaccompanied housing unit acquired or constructed under this subchapter unless the unit is located on a military installation.

S 2881. **ANCILLARY SUPPORTING FACILITIES** (Section (b) was added by the Defense Authorization Act for Fiscal Year 1999, Public Law 106-65)

(a) **Authority to Acquire or Construct.** Any project for the acquisition or construction of military family housing units or military unaccompanied housing units under this subchapter may include the acquisition or construction of an ancillary supporting facilities for the housing units concerned.

(b) **Restriction.** A project referred to in subsection (a) may not include the acquisition or construction of an ancillary supporting facility if, as determined by the Secretary concerned, the facility is to be used for providing merchandise or services in direct competition with:

(1) the Army and Air Force Exchange Service;
(2) the Navy Exchange Service Command;
(3) a Marine Corps exchange;
(4) the Defense Commissary Agency; or
(5) any non-appropriated fund activity of the Department of defense for morale, welfare, and recreation of the members of the armed forces.

S 2882. ASSIGNMENT OF MEMBERS OF THE ARMED FORCES TO HOUSING UNITS

(a) ***In General.***--The Secretary concerned may assign members of the armed forces to housing units acquired or constructed under this subchapter.

(b) ***Effect of Certain Assignments on Entitlement To Housing Allowances .***—

(1) Except as provided in paragraph (2), housing referred to in subsection (a) shall be considered as quarters of the United States or a housing facility under the jurisdiction of a uniformed service for purposes of section 403(b) of title 37.

(2) A member of the armed forces who is assigned in accordance with subsection (a) to a housing unit not owned or leased by the United States shall be entitled to a basic allowance for quarters under section 403 of title 37 and, if in a high housing cost area, a variable housing allowance under section 403a of that title.

(c) ***Lease Payments Through Pay Allotments.***--The Secretary concerned may require members of the armed forces who lease housing in housing units acquired or constructed under this subchapter to make lease payments for such housing pursuant to allotments of the pay of such members under section 701 of title 37.

S 2883. DEPARTMENT OF DEFENSE HOUSING FUNDS

(a) ***Establishment.***--There are hereby established on the books of the Treasury the following accounts:

The Department of Defense Family Housing Improvement Fund.

The Department of Defense Military Unaccompanied Housing Improvement Fund.

(b) ***Commingling of Funds Prohibited.***—

(1) The Secretary of Defense shall administer each Fund separately.

(2) Amounts in the Department of Defense Family Housing Improvement Fund may be used only to carry out activities under this subchapter with respect to military family housing.

(3) Amounts in the Department of Defense Military Unaccompanied Housing Improvement Fund may be used only to carry out activities under this subchapter with respect to military unaccompanied housing.

(c) *Credits to Funds.*—

(1) There shall be credited to the Department of Defense Family Housing Improvement Fund the following:

(A) Amounts authorized for and appropriated to that Fund.

(B) Subject to subsection (f), any amounts that the Secretary of Defense transfers, in such amounts as provided in appropriation Acts, to that Fund from amounts authorized and appropriated to the Department of Defense for the acquisition or construction of military family housing.

(C) Proceeds from the conveyance or lease of property or facilities under section 2878 of this title for the purpose of carrying out activities under this subchapter with respect to military family housing.

(D) Income derived from any activities under this subchapter with respect to military family housing, including interest on loans made under section 2873 of this title, income and gains realized from investments under section 2875 of this title, and any return of capital invested as part of such investments.

(2) There shall be credited to the Department of Defense Military Unaccompanied Housing Improvement Fund the following:

(A) Amounts authorized for and appropriated to that Fund.

(B) Subject to subsection (f), any amounts that the Secretary of Defense transfers, in such amounts as provided in appropriation Acts, to that Fund from amounts authorized and appropriated to the Department of Defense for the acquisition or construction of military unaccompanied housing.

(C) Proceeds from the conveyance or lease of property or facilities under section 2878 of this title for the purpose of carrying out activities under this subchapter with respect to military unaccompanied housing.

(D) Income derived from any activities under this subchapter with respect to military unaccompanied housing, including interest on loans made under section 2873 of this title, income and gains realized from investments under section 2875 of this title, and any return of capital invested as part of such investments.

(d) *Use of Amounts In Funds.*—

(1) In such amounts as provided in appropriation Acts and except as provided in subsection (e), the Secretary of Defense may use amounts in the Department of Defense Family Housing Improvement Fund to carry out activities under this subchapter with respect to military family housing, including activities required in connection with the planning, execution, and administration of contracts entered into under the authority of this subchapter.

(2) In such amounts as provided in appropriation Acts and except as provided in subsection (e), the Secretary of Defense may use amounts in the Department of Defense Military Unaccompanied Housing Improvement Fund to carry out activities under this subchapter with respect to military unaccompanied housing, including activities required in connection with the planning, execution, and administration of contracts entered into under the authority of this subchapter.

(3) Amounts made available under this subsection shall remain available until expended. The Secretary of Defense may transfer amounts made available under this subsection to the Secretaries of the military departments to permit such Secretaries to carry out the activities for which such amounts may be used.

(e) *Limitation on Obligations.*--The Secretary may not incur an obligation under a contract or other agreement entered into under this subchapter in excess of the unobligated balance, at the time the contract is entered into, of the Fund required to be used to satisfy the obligation.

(f) *Notification Required For Transfers.*--A transfer of appropriated amounts to a Fund under paragraph (1)(B) or (2)(B) of subsection (c) may be made only after the end of the 30-day period beginning on the date the Secretary of Defense submits written notice of, and justification for, the transfer to the appropriate committees of Congress.

(g) *Limitation on Amount of Budget Authority.*--The total value in budget authority of all contracts and investments undertaken using the authorities provided in this subchapter shall not exceed--

(1) \$850,000,000 for the acquisition or construction of military family housing; and

(2) \$150,000,000 for the acquisition or construction of military unaccompanied housing.

S 2884. **REPORTS**

(a) ***Project Reports.***—

(1) The Secretary of Defense shall transmit to the appropriate committees of Congress a report describing—

(A) each contract for the acquisition or construction of family housing units or unaccompanied housing units that the Secretary proposes to solicit under this subchapter; and

(B) each conveyance or lease proposed under section 2878 of this title.

(2) The report shall describe the proposed contract, conveyance, or lease and the intended method of participation of the United States in the contract, conveyance, or lease and provide a justification of such method of participation. The report shall be submitted not later than 30 days before the date on which the Secretary issues the contract solicitation or offers the conveyance or lease.

(b) ***Annual Reports.***—The Secretary of Defense shall include each year in the materials that the Secretary submits to Congress in support of the budget submitted by the President pursuant to section 1105 of title 31 the following:

(1) A report on the expenditures and receipts during the preceding fiscal year covering the Funds established under section 2883 of this title.

(2) A methodology for evaluating the extent and effectiveness of the use of the authorities under this subchapter during such preceding fiscal year.

(3) A description of the objectives of the Department of Defense for providing military family housing and military unaccompanied housing for members of the armed forces.

S 2885. **EXPIRATION OF AUTHORITY**

(a) The authority to enter into a contract under this subchapter shall expire five years after the date of the enactment of the National Defense Authorization Act for Fiscal Year 1996.

(b) The table of subchapters at the beginning of such chapter is amended by inserting after the item relating to subchapter III the following new item: IV. Alternative Authority for Acquisition and Improvement of 2871. Military Housing.

(c) ***Final Report.*** — Not later than March 1, 2000, the Secretary of Defense shall submit to the congressional defense committees a report on the use by the Secretary of

Defense and the Secretaries of the military departments of the authorities provided by subchapter IV of chapter 169 of title 10, United States Code, as added by subsection (a). The report shall assess the effectiveness of such authority in providing for the construction and improvement of military family housing and military unaccompanied housing.

APPENDIX C. ALTERNATIVE AUTHORIZATIONS RANKED BY BUDGET IMPACT

THE PRIVATIZATION AUTHORITIES

The Military Housing Privatization Initiative (MHPI) provides the Department with a variety of authorities with different benefits and budgetary impacts. The chart below lists the twelve basic authorities and describes their benefits and budget impacts. It also indicates which of 16 awarded projects used those authorities.

Authority	Section	Description	Benefit	Budget Impact (1)	Where Used
Conveyance or Lease of Land and Units (2)	2878	DoD may transfer ownership of units and land by fee simple conveyance or long-term lease	Transfer of ownership secures private sector financing Cash flow from units allows for additional private sector debt to fill financing gap	None	Lackland AFB, TX – land lease MCB Camp Pendleton, CA – conveyance of units and land lease Robins AFB, GA – conveyance of units and land lease Fort Carson, CO & Elmendorf AFB, AK – conveyance of units and land lease Fort Hood, TX NC San Diego, CA NC New Orleans, LA NC South Texas, TX Fort Meade, MD Fort Lewis, WA
Unit Size and Type	2880	DoD can build to local standards	Results in more cost-effective development	None	Lackland AFB, TX Fort Carson, CO NS Everett, WA NAS Corpus Christi, TX NS Everett II, WA NAS Kingsville, TX MCB Camp Pendleton, CA Dyess AFB, TX Robins AFB, GA Elmendorf AFB, AK Fort Lewis, WA
Ancillary Support Facilities	2881	DoD can allow private sector to construct ancillary support facilities for the housing development (e.g., play areas, jogging trails)	Enhances quality of life for military tenants.	None	Lackland AFB, TX Fort Carson, CO NS Everett, WA NAS Corpus Christi, TX NS Everett II, WA NAS Kingsville, TX MCB Camp Pendleton, CA Dyess AFB, TX Robins AFB, GA Elmendorf AFB, AK NC San Diego, CA Fort Hood, TX NC New Orleans, LA NC South Texas, TX Fort Lewis, WA

Authority	Section	Description	Benefit	Budget Impact (1)	Where Used
					Fort Meade, MD
Payments by Allotment	2882(c)	DoD can require tenants to pay rents through allotments	Improves financing by minimizing uncertainty of late payments and non-payment of rent	None	Lackland AFB, TX Fort Carson, CO NS Everett II, WA NAS Kingsville, TX MCB Camp Pendleton, CA Dyess AFB, TX Elmendorf AFB, AK
Loan Guarantees (3)	2873	DoD can guaranty private sector loan	Lowers interest rate Ensures availability of private sector financing	4% - 7% of loan amount for limited base closure guarantee	Fort Carson, CO Lackland AFB, TX Robins AFB, GA Elmendorf AFB, AK
Direct Loan (4)	2873	DoD can provide a direct government loan	Brings additional financing at concessional interest rates	30% - 100% of loan amount, depending on terms.	Lackland AFB, TX Dyess AFB, TX Robins AFB, GA Kingsville NAS, TX MCB Camp Pendleton, CA Elmendorf AFB, AK
Differential Lease Payments (DLP)	2877	DoD can provide an additional rental payment directly to the developer	Brings additional financing by increasing rental income	Net present value of DLPs over life of contract	NS Everett, WA NAS Corpus Christi, TX NC San Diego, CA
Investments (Joint Venture)	2875	DoD can provide equity investment	DoD obtains an interest in the business entity that does the project	Cash equity contribution is scored at 100% upfront	NS Everett, WA NAS Corpus Christi, TX NS Everett II, WA Kingsville NAS, TX Fort Hood, TX NC San Diego, CA NC New Orleans, LA NC South Texas, TX
Interim Leases	2879	DoD can lease privatized units for an interim period	Technical tool to enable occupancy prior to conveyance	Net present value of lease payments during interim period	None
Assignment of Members (Tenant Guarantee)	2882 (a)(b)	DoD can assign members to privatized housing	Could support occupancy during downsizing or deployment	Net present value of rental stream generated by assigned members	None
Build to Lease	2874	DoD can contract for the private sector to build and maintain units for lease by DoD	Central payment by DoD in stead of tenant – analogous to 801 Program	Net present value of lease payments	None
Rental Guaranty	2876	DoD can guaranty occupancy or rental income.	Enhances the availability of private sector financing – analogous to 802 Program	Net present value of rental payments	None

Legend. AFB. Air Force Base
MCB. Marine Corps Base
NAS. Naval Air Station
NC. Naval Complex
NS. Naval Station

This data was presented to the Subcommittee on Military Construction of the House Appropriations Committee, on 13 March 2002, by Mr. Raymond F. Dubois, Jr., Deputy Under Secretary of Defense (Installations and Environment)

Footnotes.

- (1) Scoring in accordance with the Federal Credit Reform Act and Budget Enforcement Act of 1990, OMB Circular A - 11, and OMB MHPI Guidelines of 25 June 1997.
- (2) Because base land usually produces no revenue stream, and thereby has no impact on budget surpluses and deficits, "pay-as-you-go" provisions of the Budget Enforcement Act require that it be scored at 0%.
- (3) Scores for private source loan guarantees are calculated based on the degree of "exposure," or probability of default by the project's contractor under severely constrained conditions such as base closure.
- (4) Scores for DOD direct loans are calculated using the difference between the interest rate negotiated between the Service and contractor weighted by the probability of contractor default.

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APPENDIX D. AWARDED PROJECTS AS OF 31 DECEMBER 2001

Fort Carson, Colorado. Awarded September 1999 to J.A. Jones

Government: 1. Convey all existing units to developer
2. Lease 777 acres of land to developer
3. Provide first mortgage guarantee against developer default due to base closure, downsizing or deployment

Developer: 1. Renovate 1,823 units
2. Construct 840 units on base (leased land)
3. Own, operate and maintain 2,663 units for 50 years

Fort Hood, Texas. Awarded October 2001 to Lend Lease Actus

Government: 1. Convey all existing units to developer
2. Lease underlying land to developer
3. Provide an equity investment and become a limited partner

Developer: 1. Renovate 4,624 units
2. Convert 630 two-bedroom units to 315 four-bedroom units
3. Construct 973 new units on base
3. Own, operate and maintain 5,912 units for 50 years

Lackland AFB, Texas. Awarded August 1998 to Landmark

Government: 1. Lease 96 acres to developer
2. Provide a second mortgage
3. Provide a first mortgage guarantee against developer default due to base closure, downsizing or deployment

Developer: 1. Demolish 272 existing units
2. Construct 420 new units on base
3. Own, operate and maintain 420 units for 50 years

Robins AFB, Georgia. Awarded September 2000 to Hunt Building Corp.

Government: 1. Convey 670 units and 270 acres of land to developer
2. Provide a second mortgage
3. Provide a first mortgage guarantee against developer default due to
base closure, downsizing or deployment

Developer: 1. Demolish 370 existing units
2. Construct 370 new units on conveyed land
3. Renovate 300 units
4. Own, operate and maintain 670 units for 30 years (may be extended for
two additional 10-year periods)

Dyess AFB, Texas. Awarded September 2000 to Hunt Building Corp.

Government: 1. Provide a first mortgage loan

Developer: 1. Construct 402 new units on private land, off-base
3. Own, operate and maintain 402 units for 40 years

Elmendorf AFB, Alaska. Awarded March 2001 to Aurora Military Housing LLC

Government: 1. Convey 584 existing units
2. Lease 219 acres to developer
3. Provide a second mortgage loan
4. Provide a first mortgage guarantee against developer default due to
base closure, downsizing or deployment

Developer: 1. Demolish 176 existing units
2. Construct 420 new units on base
3. Renovate 200 units
4. Own, operate and maintain 828 units for 50 year s

Corpus Christi NAS and Kingsville NAS, Texas. Awarded July 1996 to Landmark

Government: 1. Provide an equity investment and become a limited partner

Developer: 1. Construct 404 new units on developer provided land, off base
2. Own, operate and maintain 404 units for 10 years

Everett NS, Washington. Awarded March 1997 to Dujardin

Government: 1. Provide an equity investment and become a limited partner
2. Provide differential lease payments

Developer: 1. Construct 185 new units
2. Own, operate and maintain 185 units for 10 years

Kingsville -2 NAS, Texas. Awarded November 2000 to Hunt Building Corp.

Government: 1. Convey 244 existing units and 30 acres to developer
2. Provide an equity investment and become a limited partner
3. Provide a second mortgage loan

Developer: 1. Construct 150 new units on developer-provided land off-base
3. Own, operate and maintain 150 units for 30 years with a Navy option
to terminate anytime after 15 years

Everett-2 NS, Washington. Awarded December 2000 to Gateway

Government: 1. Provide an equity investment and become a limited partner
2. Supplement service member's rental payments with differential lease
payments over the first 15 years.

Developer: 1. Construct 288 new units on private land off-base
3. Own, operate and maintain 288 units for 30 years with a Navy option
to terminate anytime after 15 years

Camp Pendleton MCB, California.

Awarded November 2000 to Hunt Building Corp.

- Government:
1. Convey 512 existing units
 2. Lease 132 acres to developer
 3. Provide a second mortgage loan

- Developer:
1. Demolish 312 existing units
 2. Construct 512 new units on base
 3. Renovate 200 units
 4. Own, operate and maintain 712 units for 50 years

San Diego NC, California.

Awarded August 2001 to Lincoln Property Co. and Clark Realty Capital LLC

- Government:
1. Convey 2,660 existing units
 2. Lease underlying land to developer
 3. Provide an equity investment and become a limited partner

- Developer:
1. Demolish 812 existing units
 2. Construct 1,400 new units on the leased land
 3. Own, operate and maintain 3,248 units for 50 years

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